



## DOCTOR OF EDUCATION (EDD)

### **Exploring the Relationship between Classroom Dialogue and Individual Generative Creativity a Case Study**

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**Exploring the Relationship between Classroom Dialogue and  
Individual Generative Creativity: a Case Study**

**Jennifer Matic**

**A thesis submitted for the degree of Doctor of Education**

**University of Bath  
Department of Education**

**May 2015**

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## **Abstract**

The ability to be creative is increasingly considered to be an important objective in preparing university graduates for their future roles as citizens and employees. Both participation in dialogue and interacting with others from different cultures have been found to increase creative capability. This study focused on the multicultural student-to-student dialogue which took place in one graduate level course. The purpose of this study was to explore the experiences of graduate students in this dialogue, as well as how this participation might influence these students' generation of creative ideas for their final papers. An analysis of the data highlighted that the main benefits of participating in the student-to-student dialogue were enhanced learning, social connection, a more pleasant learning experience, and the freedom to express oneself and also to challenge others. The most significant challenge to the student-to-student dialogue was a low level of participation by some non-native speakers. Although non-native speakers generally found participation in the student-to-student dialogue to be more challenging, this was not true of all students. Some non-native speakers were able to break through "the barrier of shame", a term used by one student, and to play an active part in the dialogue. No connection was found between the amount of participation in the multicultural student-to-student dialogue and the generation of creative ideas for their final papers; however, it is possible that this is due to the need to distinguish between participation, defined as the amount of talking by the speaker, and engagement in the dialogue, defined as actively following and considering the dialogue.

## **Chapter 1: Introduction**

### **1.1 Introduction**

When considering the role of higher education in developing students' creative capability, it may be useful to consider the four main purposes of higher education as outlined by Bergan (2010): to promote graduates' personal development, to prepare them for employment, to prepare them to be citizens of society, and to help them build and maintain an extensive pool of knowledge. The development of student creativity has relevance for all four purposes. Creativity is innate to the human condition, and thus part of developing the person should necessarily involve the development of creative capabilities (Jackson 2006). At the same time, it is increasingly considered that the ability to be creative must be included in the outcomes which prepare university graduates for their future roles as citizens and employees in an uncertain world (Craft 2006; Csikszentmihalyi 2006; Gregerson *et al.* 2013; Nygaard *et al.* 2010). Finally, knowledge and creativity go hand-in-hand as knowledge is a foundation of creativity (Cropley and Cropley 2010). In-depth knowledge as well as diverse knowledge, critical thinking skills, and deep learning are all fundamental for creativity (Boden 2001; Sawyer 2012).

If the development of students' creative capability is a desired outcome of the higher education process, how then should this capability be developed? Which pedagogies are most appropriate? As we will see below, and in more detail in Chapter 2, theory indicates that creative capability can be enhanced in multiple ways through thoughtful discourse with others (Dyer *et al.* 2011; Jacobs and Heracleous 2005; Sawyer 2007). Yet, while the use of dialogue to benefit students' creative abilities has been theorized quite extensively in the literature, there is very little research which has actually explored this area (Craft 2005; Wegerif and Higgins 2010).

The problem examined in this study is how graduate students' generative creativity can be developed by participating in multicultural student-to-student dialogue. The purpose of this study is to learn more about the practice of multicultural student-to-student dialogue as it occurs in the real world and how it might influence the generation of creative ideas in the participants.

### **1.2 Theoretical Framework**

Although the creative process is complex, in general creativity may be conceived of as the interplay between our knowledge and the way in which we think (Sawyer 2012).



Knowledge may be considered to be the raw material of creativity (Weisberg 1999); during creativity our cognitive processes act upon and work with that knowledge in ways associated with creative outputs (Dyer *et al.* 2011; Sawyer 2012; Ward and Kolomyts 2010). Because of this, when considering how the creative ability of students can be enhanced in higher education, we tend to focus on these two areas—how the educational process can build the knowledge needed for creativity, and how the educational process can strengthen the students' abilities to think creatively (Wegerif and Higgins 2010).

Both dialogue and exposure to others from other cultures are theorized to enhance creativity, and to do so in similar ways. During both dialogue and interaction with others from different cultures, we encounter and engage with new information (McLeod *et al.* 1996; McNamee and Shotter 2004; Maddux and Galinsky 2009). When this happens, we reflect upon, revise, and refine our existing knowledge; we incorporate some of the new knowledge with which we have engaged into our own knowledge, making it both more complete and more diverse (Chi 2008; Skidmore 2006; Swain 2000); moreover, when engaging with new information, we utilise many of the same cognitive processes associated with creativity, thus strengthening them (Jackson and Sinclair 2006; Leung *et al.* 2008). It has been found that dialogue facilitates mental model shifts (Jacob and Heracleous 2005), which in turn facilitates creative insight (Craft 2006; Hennessey and Amabile 2010; Kozbelt *et al.* 2010). Enhanced critical thinking skills and cognitive flexibility, both of which have been found to be conducive to creativity (Chi 1997; Mumford and Gustafson 1988), have also been identified as outcomes of participating in dialogue (Wegerif and Higgins 2010).

The potential of student-to-student dialogue to benefit both student learning and their creative ability is intriguing, but when we consider the increased internationalisation of higher education in much of the world, the potential benefit is compounded. Theory supports the notion that students participating in multicultural student-to-student dialogue will be exposed to more new information (Boden 2001) than in homogenous student-to-student dialogue, increasing the benefit to them and their creativity (Leung and Chiu 2008; Maddux *et al.* 2009).

While the use of student-to-student dialogue has been theorized to prevent multiple advantages to students' learning, the effective use of it in the real world is not without potential challenges and obstacles (Wells 1999). Dialogue is a very specific form of classroom talk, and if it is to occur, care must be taken to structure it correctly and to educate the student participants as to the guidelines and norms which make dialogue successful (Wiberg 2003). Because during student-to-student dialogue the educational experience is collectively formed by the students, they each wield considerable power to positively or negatively impact that educational experience. Thus, in addition to exploring

how participating in multicultural student-to-student dialogue may affect student creativity, this study will also explore the experiences of students with dialogue itself. Using a case study research design, an attempt will be made to understand both the collective and individual experiences of the students who participated in it, specifically the benefits that they believed they obtained from participating in the dialogue as well as the challenges that occurred during the dialogue.

### **1.3 Research Questions**

The main research questions to be addressed in this study are:

*RQ 1: What are the experiences of graduate students participating in multicultural student-to-student dialogue?*

1. *What are the benefits of the dialogue for them?*
2. *What challenges to the practice of student-to-student dialogue can arise?*

*RQ2: How does participation in multicultural student-to-student dialogue influence the generation of creative ideas in graduate students?*

1. *How does the diversity of the class affect the generation of creative ideas?*
2. *How does the level of participants in multicultural student-to-student dialogue affect the generation of creative ideas?*

### **1.4 Research Methodology**

This study will focus on the multicultural student-to-student dialogue which took place in a graduate level course delivered by the Rochester Institute of Technology during the fall semester of the 2013-2014 academic year. Founded in 1829, Rochester Institute of Technology, or RIT, emphasizes career education and experiential learning, historically working with Rochester native companies such as Bausch and Lomb, Kodak, and Xerox in providing technical training for skilled workers in industry. With a current enrolment of approximately 15,000 undergraduate and 3000 graduate students, RIT continues its emphasis on providing quality education that can be utilized by students in their professional careers. The Service Leadership and Innovation program is designed for managers or those with managerial aspirations, and focuses on the alignment of the key functions of business management from the perspective of facilitating innovation. The SERQ 710 Evolving Contexts of Service course is the introductory course for this program.

As mentioned in Section 1.3, the research design employed in this study was that of a single case study with imbedded units. The single case was the multicultural student-to-student

dialogue which took place in the SERQ 710 Evolving Contexts of Service course during the fall semester of the 2013-2014 academic year, with the individual students who participated in the dialogue considered to be the imbedded units. The Evolving Contexts of Service course was selected as it was heavily dialogue based, with student-to-student dialogue consisting of approximately 75% of total class time; it also had a multicultural class composition; and the final project of the course was a paper in which students were asked to select an existing service company and to apply creative thinking to improve one of that company's practices.

The primary means of data collection was semi-structured interviews conducted with the students in the course as well as the course instructor; additionally, text analysis was conducted on the students' final papers as well as on course materials which supported the use of dialogue.

### **1.5 Structure of the Thesis**

Chapter 2 of this thesis presents a review of the literature most germane to this study. The main focus of this chapter is to present research which indicates how participating in dialogue and interacting with others from different cultures have the potential to affect our knowledge and strengthen our cognitive processes in ways conducive to creativity. Chapter 2 also provides an overview of the literature regarding the benefits of student-to-student dialogue for student learning and common challenges which may occur in the practice of dialogue.

Chapter 3 outlines and justifies the research approach taken in this study. This chapter argues for the suitability of a qualitative research approach, specifically a case study design, in attempting to answer the research questions. Chapter 3 also describes in detail the data collection and data analyses processes employed in this study, and also speaks to measures taken to ensure the reliability and validity of this study.

Chapter 4 presents the results of the data analysis as relevant to the two research questions. The primary benefits of participating in student-to-student dialogue, as identified by the students, are described, as are the primary challenges which occurred in the practice of the multicultural student-to-student dialogue. The chapter then goes on to present the findings of this study as related to how the generation of the creative idea for the final paper was influenced by the diversity of the class, and by the level of the student's participation.

Finally, Chapter 5 presents an analysis of the results in the context of the literature review. The main purpose of this chapter is to consider how this study has added to what is known about the practice of multicultural student-to-student dialogue and its effect on participant's

creativity. The research questions are individually considered, and additional questions raised by the study are specified.

## **Chapter 2: Literature Review**

### **2.1 Introduction**

This chapter presents a review of the literature as it relates to the research questions for this study. The chapter begins by discussing dialogue in general, and the characteristics which differentiate it from other forms of classroom talk. The chapter then moves on to describe the benefits of the use of dialogue as a pedagogy, namely, what learning outcomes dialogue is theorized to achieve.

After describing the benefits of dialogue to student learning, it is appropriate to also consider the challenges which may occur during the practice of student-to-student dialogue; some of the most common challenges highlighted in the literature are described next. These include a lack of participation, linguistic challenges for non-native speakers, and a lack of expertise amongst the students.

The literature review will then move on to describe how participating in dialogue is theorized to enhance creative ability. After this, the literature regarding the benefit for creativity capability of interacting with others from different cultures will be reviewed. We will see that both participating in dialogue and interacting with others from different cultures seem to benefit creativity in similar ways, as they both involve interacting with knowledge and perspectives different from one's own.

A primary focus of this chapter is how participating in dialogue and interacting with those from other cultures improves an individual's knowledge and cognitive processes; the chapter concludes with a section on the benefits of this for the process of generating creative ideas.

### **2.2 What is Dialogue?**

In the article 'Dialogue and the Transformation of Memory', Peter Garrett (1997) reminds us of the meaning of the word dialogue: *dia* means "through" and *logos* means "the word", so that *dialogue* means "the flow of meaning" through a group of people (para 1). Dialogue is a form of verbal communication during which participants 'suspend assumptions and enter into a genuine "thinking together"...allowing the group to discover insights not attainable individually' (Senge 1990, p. 10). Skidmore (2006) refers to dialogue as the co-construction of knowledge by participants, later saying that during dialogue 'contributions refer to and build upon what has gone before...thus enabling an advance in the collective understanding of the topic in question' (p. 506).

In the book *Dialogue, the Art of Thinking Together*, Isaacs (1999) describes the characteristics which differentiate dialogue from other forms of verbal communication, including discussion and debate. The form of verbal communication furthest removed from dialogue is debate; in debate participants hold to and defend their own beliefs, and compete with each other with the goal of convincing others of the correctness of their own perspective. Participants usually do not consider the thoughts and ideas expressed by others with an open mind, but rather tend to focus on how they can prove that their own ideas have more merit.

In discussion, participants are more open to others' beliefs and perspectives than during debate; participants listen carefully and consider what others have to say. Although discussion is a productive form of communication (Isaacs 1999), there are several characteristics which differentiate it from dialogue. First, discussion is individual thinking rather than group thinking. By this we mean that in discussion the individual thinks for him or herself, and considers and internalizes what others have to say within his or her own knowledge; there is no generation of a shared common knowledge. Second, the goal of discussion is often to reach a conclusion or make a decision; the focus of dialogue, however, is exploratory and seeks to advance the group's collective understanding. It could be said that discussion hones down the pool of ideas until the best one emerges, while dialogue expands the pool of ideas, increasing the understanding of what is true regarding the concept being discussed.

The creation of a shared common knowledge is an essential characteristic of dialogue. This shared common knowledge is created through the thinking together of the participants; they share their knowledge, experiences, and perspectives with each other, while simultaneously considering and reflecting upon the knowledge, experiences, and perspectives being shared with them by the other participants (McNamee and Shotter 2004). The goal of the participants is that they together, through this sharing of information, advance their knowledge and understanding (Bohm 2004; Reznitskaya *et al.* 2009).

With this in mind, in this study dialogue will be considered to be 'a conversation in which people think together with the intention of reaching new understandings'.

### **2.3 Student-to-Student Talk in the Classroom**

Within the classroom, we can refer to the concept of "dialogic talk". According to Alexander (2004), the essential characteristics of a dialogic classroom are that it is collective (teachers and students address the learning task together), reciprocal (teachers and students share ideas with each other, listen to each other, and consider alternative viewpoints),

supportive (students feel comfortable and safe sharing their ideas, and support each other in working towards common understandings), cumulative (teachers and students build upon each other's ideas in working towards common understandings), and purposeful (that the goal of the dialogue is to advance knowledge).

### **2.3.1 Exploratory Talk**

Barnes (2008) identifies two main kinds of student-to-student classroom talk: exploratory talk and presentational talk. In exploratory talk, students focus on “working through” new ideas and concepts. In a way, they are “thinking aloud” as they try to understand these new concepts correctly. In contrast, presentational talk is more formal and is more similar to a presentation of fully thought-through information. In a way, exploratory talk can be perceived of as initial drafts which are roughly hewn, easily discarded, and rapidly revised, while presentational talk is the “final draft” of the student's thinking. Because of this, Barnes advocates for the use of student-to-student exploratory talk when students have first encountered new ideas and are still grappling with them, as it helps them to “work through” the ideas. Meanwhile presentational talk is best used to verify student understanding after they have finished grappling with the ideas and believe that they understand them.

Mercer and Hodgkinson (2008) builds upon Barnes' concept of exploratory talk, viewing it as one of three ‘ways of talking and thinking’ (p. 104). The first kind of talk described by Mercer and Hodgkinson is disputational talk. As the name suggests, this kind of talk is viewed more as a competition than as collaboration. Participants usually argue for their own positions, knowledge is not pooled, and constructive criticism usually does not occur.

The second type of talk described by Mercer and Hodgkinson is cumulative talk. Here, knowledge is pooled, but little criticality takes place. Instead, information is shared, affirmed, and elaborated upon, in the end building, through accumulation, common knowledge.

Barnes' concept of exploratory talk is the third kind of talk described by Mercer and Hodgkinson. Here, participants share knowledge and engage critically but constructively with each other's ideas. The goal is understanding, in a way creating a solution or a theory which is justified and perseveres despite challenges made to it by members of the group. Participants engage in dialogue, or exploratory talk, with that goal in mind.

### **2.3.3 Interthinking**

In the book *Interthinking: Putting Talk to Work* (2013), Littleton and Mercer focus on the use of exploratory talk for group creativity and problem solving. The concept of interthinking, defined by the authors as ‘the everyday process whereby people collectively

and creatively use talk to solve problems and make joint sense of the world' (Littleton and Mercer 2013, p. 115), is firmly rooted in Vygotsky's Sociocultural Theory of learning, specifically the connection between *intermental* activity (social interaction) and *intramental* activity (individual thinking), as mediated by language. In other words, interthinking is collective thinking that none-the-less develops and affects the individual's thinking (Littleton and Mercer 2013). Interthinking also reflects the socio-cultural approach to creativity, in that it sees creativity as usually emerging from interaction with others. 'There is clear evidence that the most successfully creative individuals have usually benefited from being members of communities of discourse and enquiry, and that groups of people can, and commonly do, make useful creative achievements that none of them would necessarily have achieved alone' (Littleton and Mercer 2013, p. 116).

Littleton and Mercer describe two cognitive processes which underpin interthinking. The first they term *theory of mind*, which refers to assessing what others think and know. The second they term *metacognition*, which is described as 'reflective awareness of our own thought processes' (Littleton and Mercer 2013, p. 11). Clearly these concepts are extensions of the concepts of *intermental* and *intramental* activity, in that they represent a balance during dialogue of interaction and thinking with others on the one hand, and internal reflection and learning on the other hand. *Co-regulation* is the third process which, in combination with theory of mind and metacognition, characterizes exploratory talk.

According to Littleton and Mercer (2013), students often begin exploratory talk by sharing information and experiences that they have in common, for example their thoughts on the assigned reading to be discussed that day. Littleton and Mercer describe this "comparing" of knowledge as an important part of the process of learning, as through it students check their own interpretation of ideas and monitor their own progress in understanding the concepts. Here we can see that students are engaged both in theory of mind and in meta-cognition. They are also starting to build the "common knowledge" which underpins exploratory talk.

According to Littleton and Mercer (2013), common knowledge can be thought of in two ways. The first, *dynamic common knowledge* is the knowledge co-constructed by the participants. It emerges through their interaction; it is generated through 'their joint activities and associated conversations' (p.112) and is built primarily through cumulative talk. The second type of common knowledge can be described as *background knowledge* that all participants are expected to have as members of a community of practice. For example, if faculty members engaged in exploratory talk, there are certain concepts and terms that it would be assumed that all would be familiar with; however, others outside of their community of practice (such as electricians) would not be familiar with those concepts



and terms (nor would faculty members be likely to be familiar with those concepts and terms known by electricians).

#### **2.3.4 Mercer's Theory of the Guided Construction of Knowledge**

Both Barnes and Mercer explicitly endorse the notion that students learn best when they actively engage with the material. As Mercer (1995) says on p. 67, 'the creation of shared knowledge and understanding is rarely, if ever, a matter of simply pooling information. Information can be accumulated, but knowledge and understanding are only generated by *working* with information, selecting from it, organizing it, arguing for its relevance'. Mercer's Theory of the Guided Construction of Knowledge is built upon this notion. Although this theory does focus primarily, though not exclusively, on the teacher as the facilitator of students' active engagement with information, its understanding of how students learn none-the-less has merit for the purposes of this study. On p.68 Mercer (1995) states that any theory of learning regarding classroom talk must necessarily include two components: *context* and *continuity*. Classroom talk's context refers to 'anything beyond the words that contributes to the meaning of the talk' (p. 68) (keeping in mind that the talk itself builds its own context). Continuity refers to the process of creating knowledge 'in which, for it to be successful, themes must emerge and continue, explanations must be offered, accepted and revisited, and understanding must be consolidated' (Mercer 1995, p.68). Mercer illustrates the concept of continuity in classroom talk through the following metaphor, in which he likens the themes in exploratory talk to dolphins swimming through the water: they are not always visible, but are recognizable when they resurface from time to time.

Although Mercer builds upon the foundation laid by Barnes, Mercer seems to place more emphasis on language as a crucial third component of the construction of knowledge. He emphasizes how language is integral to learning in that it is the medium through which we present information to ourselves, but is also the way that we communicate and share information with each other. Thus it connects social interaction (intermental activity) to the knowledge of the individual, and vice versa. Mercer (1995) speaks of language as being fundamentally cultural, calling it 'an essential cultural tool' (p. 4). He goes on to describe how 'our cultural knowledge' (p.6) influences the way that we talk and write.

#### **2.4 Dialogue and Learning**

Dialogue is grounded in the social constructivist philosophy of education which sees learning, or the construction of knowledge, as largely a social process (Barnes 2008; Littleton and Mercer 2013). Consequently, implicit in social constructivist approaches to education is the idea of "active learning", namely that when students actively rather than

passively engage with knowledge, they learn better (Barnes 2008; Hardman 2008). Social constructivists reject the *transmission* notion of teaching, in which closed, formed knowledge is communicated from the teacher to the passive student. Instead, in social constructivist approaches, students are to be active in their own learning, and learning is considered to be a reciprocal process in which ideas are discussed by students as well as the teacher (Mercer 1995). Language has an important role in the social constructivist approach to education, as it is the medium through which knowledge is “worked through” (Hardman 2008).

Barnes describes active learning as ‘attempting to interrelate, to reinterpret, to understand new experiences and ideas’ (2008, p.2). In the case of student-to-student classroom dialogue, the focus of this study, students are not only engaging with their own knowledge, but also with the knowledge of their classmates. It is through this interaction that they confirm (Mercer 1995), revise (Chi 2008), and extend their own knowledge and understanding (Chi 1997; Jacobs and Heracleous 2005; Posner *et al.* 1982), and through interaction with others, others’ knowledge and understanding as well (Senge 1990; Wood 2004). Laurillard (2012) describes student-to-student discussion as being a powerful stimulant for the ‘productive internal conversation’ (p. 143) that leads to an individual’s learning. When students share these thoughts with others, the other students’ learning also benefits (Reznitskaya *et al.* 2009).

A useful framework for understanding how new information interacts with existing knowledge is Conceptual Change Theory. According to this theory, when an individual encounters new information, it either fits into an existing schema or does not. If it fits into an existing schema or requires minimal alteration of them, that knowledge will be assimilated. It is when the individual encounters information which lies in contradiction to existing knowledge that transformational learning occurs. The individual must either reject or accept the new information; if it is accepted, his or her existing schema must be altered in order to accommodate the new information (Posner *et al.* 1982).

For Chi (2008), a student’s knowledge consists of ‘an interrelated system of false beliefs and correct beliefs, forming a coherent but sometimes flawed mental model’ (p. 70). The mental model is an internal representation of a concept related in some way to an external manifestation of that concept. Let us take for example the concept of “dog”. Each individual’s beliefs about dogs (‘dogs have four legs’; ‘dogs have fur’) together make up that individual’s mental model, or concept, of “dog”.

When an individual encounters information which conflicts with an existing belief about dogs, that person must either dismiss the new information or revise the belief. If enough

beliefs are changed, the mental model itself is revised (Chi 2008; Miyake 2008). It follows, then, that it is easier to change a belief than to change a mental model (Chi 2008).

According to Chi (2008), new information can interact with prior knowledge in at least three ways. First, if the concept does not already exist within the learner's knowledge, learning consists of establishing that concept by adding information that was missing. Second, if the learner has some conceptual knowledge but it is incomplete, new knowledge can be seen as "gap-filling"—adding to the existing concept to render it more complete. Third, new information may come into conflict with the existing conceptual knowledge. In this situation learning is 'changing prior misconceived knowledge to correct knowledge' (Chi 2008, p. 61). The first two types of learning (adding new knowledge and gap-filling incomplete knowledge) are enriching knowledge acquisition. The third type of learning (changing incorrect knowledge) is conceptual change.

For many educational theorists, mental model revision is the essence of more profound and transformative learning (Bohm 2004; Jacobs and Heracleous 2005; McNamee and Shotter 2004). Barnes (2008) calls this process "working on understanding", meaning 'the reshaping of old knowledge in the light of new ways of seeing things' (p. 3). Gunnlaugson and Moore (2009) define transformative education as 'the process of undergoing significant shifts in one's self-view and worldviews, which in turn brings about changes on all levels, from the individual lives of student and educator, to the classroom culture as a whole and the current structures and norms of higher education' (p. 171). Wood (2004) emphasizes the transformative power of dialogue, describing engaging in dialogue as an experience that allows 'transformation in how one understands the self, others, and the world they inhabit' (p. xvi).

The use of classroom dialogue itself, and student-to-student dialogue in particular, can thus be said to present at least two main advantages. First, during dialogue students actively engage with information, a practice which numerous studies have shown enhances learning more than transmission (Barnes 2008; Littleton and Mercer 2013; Skidmore 2006). Second, during student-to-student dialogue students encounter new information presented by their peers (Ford 2004; Reznitskaya *et al.* 2009). For both of these reasons, student-to-student dialogue is conducive to mental model revision and consequently transformational learning (Gunnlaugson and Moore 2009). Because students are more active and interact with each other more during student-to-student dialogue than during teacher-led classroom dialogue, student-to-student dialogue presents a greater potential benefit for student learning (Laurillard 2012).

Laurillard (2012) is clear that discussion in and of itself does not necessarily benefit learning. Instead, the dialogue will be effective based primarily on the extent to which the student takes a particular position; backs up his or her position with evidence and explanations; considers and responds to the arguments of others; reflects on his or her own perspective in light of those of others; work collectively with others towards an agreed output, such as greater understanding or making a decision; and applies what he or she has learned (Laurillard 2012).

## **2.5 Challenges to Dialogue**

The literature agrees that, for the reasons described in Section 2.4, participating in classroom dialogue has considerable potential to benefit student learning (Brown and Renshaw 2000; Skidmore 2006; Wells and Mejia Arauz 2006). However, the degree to which this occurs is dependent on a number of factors. A significant factor which influences to what extent a student's learning is benefited by the interaction of student-to-student dialogue is the quality of the student's participation in that dialogue (Laurillard 2012). As described in the preceding paragraph, students must actively work with their own and other's ideas in order for the outcomes of dialogue to be obtained. Not only will the quality of the participation influence the student's own learning, but, as student-to-student dialogue is based on the premise that quality dialogue occurs when students freely exchange and evaluate each other's thoughts, poor participation has the potential to negatively impact other's learning as well.

Ideally, students participating in student-to-student dialogue would be highly engaged, interested in and attentive to the ideas of others, would critically evaluate them and integrate them into their own knowledge, and would share their own thoughts with the class. This student-to-student dialogue would be a dynamic exchange of ideas with the end goal being to have greater understanding of the concepts being discussed.

In the real world, this is not always the case, and the quality of student participation can vary for a number of reasons. Students may not be interested in the topic or other's thoughts; they may be reticent to participate out of shyness or other factors; the instructor may be needed to pull and prod participation, and to scaffold the comments made; or the group may not have the expertise needed to advance their collective knowledge. In this section some of the more common challenges to the effective practice of dialogue will be discussed.

### **2.5.1 Lack of Participation**

According to Wade (1994), an ideal class discussion is one in which ‘almost all students participate and are interested, learning, and listening to others’ comments and suggestions’ (p. 237), with participation being defined as ‘the number of unsolicited responses volunteered’ (Burchfield and Sappington 1999, p. 290).

Rocca (2010) conducted a meta-analysis of the literature on student participation in college classrooms. According to her analysis, a significant variable which affects student participation is how safe the student feels within the classroom environment. This can vary depending on the classroom, and also vary depending on the individual. Some students are naturally higher in classroom apprehension than others; they will then be less likely to participate. However, as students get to know their classmates, especially when these classmates are accepting, even more apprehensive students are likely to begin to participate more.

A significant variable affecting student participation is the age and classroom experience of the students. Older traditional students, and especially non-traditional students, have been found to participate more than younger traditional students (Fritschner 2000; Rocca 2010). Although Rocca describes this as being due to increased classroom experience, considering that students are generally at the same academic level (and thus have completed approximately the same number of years of schooling), this seems implausible. Instead, the results indicate that age itself, rather than classroom experience, may influence student participation. Certainly, the variable they are both connected to is student confidence—whether this comes from age, from classroom experience, or from another source, those students who are more confident in the classroom environment participate more (Rocca 2010). The importance of confidence to student participation was also emphasized by Fassinger (1995) and Weaver and Qi (2005).

Another factor related to student confidence in the classroom has to do with feeling comfortable and confident speaking in class. Kao and Gansneder (1995) and Tatar (2005) found that students who did not speak English as their first language were less likely to participate in class. The study of Kao and Gansneder was particularly germane to this study as it focused on participation by international graduate students in American classrooms. The primary reasons students cited for not participating were because of a negative classroom environment, problems with the English language, nonassertiveness, unfamiliarity with the discussion content, and there being no requirement for speaking.

Sidelinger and Booth-Butterfield (2010) focused on how classroom atmosphere influences student participation. They defined a positive classroom atmosphere as being one in which

students are encouraged to think positively and constructively about themselves, in which they feel accepted by the teacher as well as their fellow classmates, and in which they experience a sense of comfort and order. They found that the level of connection between students positively influenced students' participation in the classroom, with participation increasing with the level of student-to-student connection.

According to Rezniskaya *et al.* (2008), an essential characteristic of effective classroom dialogue is that it is egalitarian in nature. Although the instructor has a necessary role as the more knowledgeable participant, for discussion to be true dialogue, participants must be able to freely express themselves. It can be hypothesized that necessarily a power imbalance exists between the instructor and the students; thus the more the students (rather than the instructor) lead the dialogue, the more likely students are to feel comfortable participating. This may be another reason why student-to-student dialogue is considered in general to be more beneficial for student learning than teacher-led classroom dialogue.

Additional logistical factors identified by Rocca (2010) which have been found to influence student participation include:

- Class size affects student participation, with students being more willing to participate, less anxious about participating, and less able to “hide” in smaller classrooms.
- Seating arrangements have also been found to influence student participation. In general, participation is greater in U-shaped, circular, and semi-circular seating arrangements than in traditional row and column seating. However, students with high levels of classroom apprehension tend to feel most anxious in U-shaped, circular, or semi-circular seating; it should be noted, however, that this does not mean that students high in classroom apprehension are likely to participate less in these types of seating arrangements than in the traditional row and column seating.
- Students have also been found to participate less in evening classes than in day classes, especially when these classes meet just once per week. They have also been found to participate more as the semester progressed.
- Instructor behaviour was also found to influence the level of student participation. Having participation count towards the final grade caused higher levels of participation than when it did not. Additionally, requiring participation and also calling on students when they did not participate enough were found to increase the level of participation.

Classroom environments which make the students feel more comfortable and which encourage student participation (whether that be by class format, atmosphere, or seating arrangement) are most conducive to classroom dialogue. For example, in my opinion one reason why students participate less in lecture-style classrooms may be that that type of format communicates to students that their participation is not valued; however, when one considers this finding (namely that students tend to participate less in lecture-format classes) in conjunction with the finding that large class sizes discourage student participation, another conclusion may be that both of these factors actually make it difficult for students to participate—they have less opportunity to do so. Considering the finding that large class sizes generally discourage student participation along with the tendency for students to participate more in day classes than evening classes, in classes that meet multiple times per week versus just once a week, and also to participate more as the semester progresses, it would seem probable that a significant variable affecting students' participation in classroom dialogue may be how comfortable the student feels with his or her classmates and the instructor, also identified as a significant factor by Sidelinger and Booth-Butterfield (2010).

All in all, to me it seems that participation is greater when the student is comfortable and feels accepted by his or her colleagues and the instructor; when the classroom environment encourages participation (through such things as seating arrangement or using a discussion-based class format); and when participation is explicitly an expected behaviour on the part of the individual (rather than an exception). Students with higher levels of confidence are more likely to participate than those with lower levels, it can be argued, because they feel more comfortable.

Interestingly, the literature reviewed, which included a recent meta-analysis (Rocca 2010) did not include several factors that would seem likely to influence student participation. One of these would be the student's level of interest in the dialogue--if the student was not interested in the material being discussed, it is plausible that his or her participation would tend to be poorer. The student's level of motivation, which can be influenced by diverse factors, would seem to also be likely to affect his or her level of participation.

### **2.5.2 Lack of Proficiency for Non-Native Speakers**

As mentioned in Section 2.5.1, non-native speakers of a language can encounter additional barriers to participation in student-to-student dialogue. As this study will examine the practice of student-to-student dialogue in a course in which 9 out of the 13 participants were not native speakers of English, it is worth spending some time to understand how this may have influenced their experience of and participation in classroom dialogue.

Meyer (2000) identified four significant and highly-related barriers that English learners face in English language classrooms. The first is cognitive load, which refers to the number of new concepts the student encounters in the classroom. The cognitive load can be said to be heavy if the learner encounters many new concepts in the classroom, and light if he or she is already possesses knowledge in the subject area. While both native and non-native speakers experience cognitive load, this concept has particular significance for non-native speakers, as a light cognitive load will assist students in drawing meaning from what others say as they are able to draw upon their existing knowledge. Meanwhile a heavy cognitive load compounds the other challenges that the students may face in an English language classroom.

The second barrier identified by Meyer is culture load. Culture load refers to the amount of cultural knowledge required for non-native speakers to adequately understand the meaning communicated by the words of others. Simple translation loses the cultural richness of the word. Instead, as Meyer states, ‘the meanings of a word in any language are determined by the multiple uses of that word within its own linguistic and cultural settings. And the meanings and uses are never identical in two cultures’ (Meyer 2000, p.230). Not only does cultural load refer to comprehending the meaning of words (usually influenced by the words in which it is embedded), but also includes (often unstated) “rules” of the classroom—behaviours that are expected or not expected by the teacher in particular, though also by the other students. ‘In addition to learning a new language, English learners are expected, often without explanation or guidance, to figure out and fit into new cultural expectations of how to behave in unfamiliar linguistic and learning situations’ (Meyer 2000, p. 231).

The third barrier identified by Meyer is language load. Language load refers to difficulties with language, including the number of unfamiliar words, the rate at which people are speaking, difficult to understand pronunciations, following the logic of a discussion that jumps from subject to subject or includes many digressions or asides. A heavy language load is characterized by ‘specialized, multisyllable, unfamiliar words compressed into lengthy and heavily embedded sentences and paragraphs’ (Meyer 2000, p. 232).

The fourth barrier encountered by non-native speakers in an English language classroom is learning load, or what the students are expected to do with English in the learning activities and tasks set out for them. The important point regarding learning load is whether what is asked from non-native speakers is appropriate to their proficiency level in English (a light learning load), or whether they are being asked to engage in English language tasks for which they are not ready or which are beyond their capabilities (a heavy learning load).



These four potential barriers (cognitive load, culture load, language load, and learning load) present real challenges to students. Yet often students encountering these barriers are considered to be unmotivated and not interested in learning (Meyer 2000). The best way to minimize or overcome these barriers is through the inherent or encouraged *learning goad* of the learner. Learning goad can best be described as the learner's love of learning, their 'yearning to know what is being taught' which 'may goad English learners to find their own ways over or around many of the barriers....in order to pursue their fascination with this subject matter' (Meyer 2000, p. 234).

Freiermuth (2001) examined the experiences of native and non-native speaker undergraduate students in classroom and online dialogue and identified a power imbalance in dialogue between native speakers, who more often took the role of "expert", and non-native speakers. In both classroom and online dialogue he noted that non-native speakers spoke fewer words and spoke up (took a turn) less often than native speakers. In one poignant example Freiermuth describes a student who, because of her accent, others had difficulty understanding. Following this experience, her participation further declined. He concludes, 'undoubtedly, lack of confidence to use the target language proficiently is a major impediment to non-native speakers' (Freiermuth 2001, p. 190).

In the article *Interactional Context in L2 Dialogues*, Wiberg (2003) focuses on the interaction between native and non-native speakers. He found that dialogues between native and non-native speakers were characterized by asymmetry (meaning that interaction is dominated by one of the parties), with asymmetry increasing in proportion to the non-native speakers' lack of language proficiency.

In this article he refers to the work of Linell and Gustafsson (1987, as cited in Wiberg 2003, p. 390), who identified three different types of dominance:

- 1) Quantitative dominance, meaning which party speaks more often;
- 2) Topic dominance, meaning which party tends to introduce new topics; and
- 3) Interactional dominance, meaning who directs and controls the dialogue, as measured in terms of initiatives and responses.

Wiberg (2003) also emphasizes the challenges that non-native speakers have in dialogue, challenges which influence the character of the dialogue. Non-native speakers must pay attention not only to the information exchanged in the dialogue, but must also concentrate on their use of a non-native language; native speakers do not have this second challenge as their interaction is characterized by automaticity (the ability to do something without occupying the mind with low-level details) and fluency.

Non-native speakers rely upon scaffolding to assist them in the dialogue, particularly if their proficiency level is pre-advanced. This scaffolding is used to verify the reception and correctness of what he or she is saying as he or she says it. They also engage in more verticalization, meaning that they express a complete thought over a series of turns (often with scaffolding from others).

Non-native speakers also tend to use repetition, meaning repeating the exact words of whoever spoke directly before, in order to gain time to reorder their thoughts. When the exchange in the dialogue is particularly rapid, they will tend to use both repetition and self-repetition (repeating their own words with minor variations) in order to gain time to retrieve information. Similarly, non-native speakers are more likely to speak in general terms and to avoid going into detail. They cling to the overall framework and to overall thoughts, and avoid “working with” the information.

Wiberg (2003) notes that the use of scaffolding, repetition, and verticalization tends to occur more frequently as the difficulty of the communication task increases. If the dialogue becomes linguistically difficult to follow, even advanced level non-native speakers will begin to use these tools to assist them with the challenge of participating in the dialogue.

Costa *et al.* (2008) focus on the flow of dialogue and the linguistic alignment which often is missing from dialogue involving native speakers and non-native speakers. According to the authors, alignment in dialogue is characterized by the use of the same word patterns, rates of speech, and words. In dialogue between native speakers, linguistic alignment tends to occur, as participants have generally the same level of linguistic proficiency; however, in dialogue between native and non-native speakers, misalignment can easily occur. When misalignment occurs, the natural, unconscious response is for participants to modify their behaviours in order to bring themselves closer to alignment. They do this by such things as using the same vocabulary or patterns of speech.

Non-native speakers encounter challenges with such things as having a restricted vocabulary, not being able to find the right words to express their thoughts, having an awkward rhythm or pattern of speech, and/or having incomplete grammatical knowledge. Because of this they tend to repeat the words of those who have just spoken, even, at times repeating the same (now incorrect) verb tense. Often enough, according to Costa *et al.* (2008), the result of the practice of repeating what has just been said is perceived by the other participants in the dialogue as a confirmation of the non-native speaker’s understanding, when in reality he or she might not fully understand what has just been said.

Thus it is clear that being a non-native speaker in classroom dialogue presents additional challenges when compared to those faced by native speakers.

### **2.5.3. Lack of Expertise**

Another challenge which may occur in student-to-student dialogue may be a lack of expertise amongst the students. Dialogue is an effective way for students to clarify what they know and what they don't know; sometimes, however, they are not able to move beyond that in order to determine what they need to know. For this to occur, someone in the dialogue has to have knowledge from which they can learn; if the knowledge level of participants is roughly equal, collectively they might not be able to advance it. In these situations, the role of the instructor is particularly important. The instructor usually needs to scaffold student-to-student dialogue, often through providing additional information, clarification, and explanation (Laurillard 2012). The instructor can also use questioning techniques to guide the students to greater understanding (Hardman 2008).

Just as the quality of student participation is crucial for the effectiveness of student-to-student talk (Reznitskaya *et al.* 2009), so too is the nature of the instructor's participation (Sidelinger and Booth-Butterfield 2010). The more students can lead their own dialogue, in general the more effective it will be (Laurillard 2012); yet the instructor must know when he or she should step in and how to effectively facilitate the student-to-student dialogue. He or she must make enough of a contribution but not too much.

Now that we have looked at the concept of dialogue, the main benefits of it as well as the challenges that may arise in the practice of it, we will now consider the relationship between dialogue and creativity.

## **2.6 Dialogue and Creativity**

The connection between dialogue and creativity has been theorized by many researchers (Jacobs and Heracleous 2005; Littleton and Mercer 2013; McNamee and Shotter 2003; Sawyer 2007, 2012; Wegerif and Higgins 2010). However, most of them focus on the generative aspect of dialogue, meaning that groups, through dialogue, are able to generate more creative ideas than individuals. Littleton and Mercer's concept of interthinking, described above, is one example of this.

Instead, this study explores the question of whether participating in dialogue positively affects an individual's creative capability. Of course, many factors influence the extent to which a person is creative (arguably the two most important of which are genetics and whether that individual's creative efforts have been encouraged and valued (Sawyer 2012)).

However, this study is interested in whether engaging with new ideas as part of the dialogue process improves an individual's creative capability.

### **2.6.1 The Importance of Knowledge and Cognitive Processes for Creativity**

The generation of a creative idea can be considered to be the product of interaction between two main components: knowledge, which can be considered to be the “raw material” of creativity, and the cognitive processes which act upon that knowledge, actually generating the creative idea (Sawyer 2012; Weisberg 1999).

The ideal knowledge needed for creativity is often described as T-Shaped (Boden 2001; Dyer *et al.* 2011). This means that is broad (diverse) as well as deep (in-depth). When we engage with new information in dialogue, both the breadth and the depth of our knowledge is likely to be positively affected as our knowledge not only becomes more complete but also incorporates more dissimilar, diverse information (Chi 1997).

Thus encountering new information broadens and deepens our cognitive structures (mental models) by both adding to them and modifying them (Miyake 2008; Murphy and Mason 2006). However, T-shaped knowledge by itself does not produce creativity; as mentioned in the preceding paragraph, the second “piece of the puzzle” is what we do with that knowledge, namely the cognitive processes that we apply to it (Ward and Kolomyts 2010).

One of the most widely adopted and influential theories of the generation of creative ideas is associationism. This theory holds that creativity is the result of combining ideas. The more diverse the ideas being combined, the more unusual is the combination, and the more creative is the result. The combination of ideas is supported by a diversity of experiences and knowledge (Ward and Kolomyts 2010). Mastery of the domain is required, but creativity is greatly enhanced if we are able to glean something from another domain and combine it with something within our own. In the sciences, for example, creative breakthroughs often occur when something within one domain is viewed through the lens of a theory belonging to another domain (Dyer *et al.* 2011). Because of this, having a larger and more diverse pool of knowledge facilitates the creative combination of ideas (Boden 2001; Cropley and Cropley 2010). Many researchers argue that having this more diverse cross-domain knowledge contributes to creativity through analogical thinking—that analogies between distinct domains allows individuals to perceive patterns in a way that wouldn't be apparent to someone working in only one domain (Weisberg 1999).

Boden (2001) describes three types of creative thinking: combinatorial, in which familiar and unfamiliar concepts are combined in new and unfamiliar ways (associationism); exploratory, in which within a conceptual space existing styles and rules are used to

generate a new idea within that space (such as finding a different way to get home when a traffic accident is encountered); and transformational, in which some defining dimension of the conceptual space is altered (Boden 2001). The knowledge needed for each is different. Having broader knowledge facilitates creative association (Boden 2001; Dyer *et al.* 2011; Maddux and Galinsky 2009), while having deep knowledge facilitates exploratory and transformational thinking (Boden 2001; Leung and Chiu 2008).

Ward *et al.*'s Theory of Creative Cognition (1999) is less concerned with the knowledge needed for creativity, and instead focuses on the cognitive processes associated with creativity. A primary tenet of the Theory of Creative Cognition is the notion that the cognitive processes which underpin creativity are normative in nature, meaning that they are the same cognitive processes that all human beings use in their daily lives (Ward *et al.* 1999).

While research into creative cognition is emergent, the most significant cognitive processes associated with creativity which have been identified include conceptual expansion, conceptual combination, and analogy. In keeping with associationism, these cognitive processes focus on the combination of concepts as the essence of creativity. Conceptual expansion occurs when attributes from one concept are added to another concept, thus expanding its conceptual boundary (Leung *et al.* 2008). Conceptual combination occurs when two separate concepts are combined (Ward *et al.* 1999). Analogy is the application or transfer of knowledge from a familiar domain to a novel or less familiar domain; an example of this given by Ward and Kolomyts (2010) is creating the musical *West Side Story* by taking Shakespeare's play *Romeo and Juliet* and transferring it to the domain of 1950's gang violence in New York City. In keeping with the theory of associationism, the more disparate the concepts, attributes, or domains being combined during creative cognition are from one another, the more creative the result.

As the Theory of Creative Cognition holds that all individuals, to a greater or lesser degree, use conceptual expansion, conceptual combination, analogy, and other cognitive processes associated with creativity in their everyday lives, a focus of creative cognition is identifying under what conditions a cognitive process becomes more or less creative. As described by Ward and Kolomyts (2010), what makes one person more creative than another includes variations in the use of these processes or combinations of processes; the intensity of the application of these processes; the capacity of memory systems, particularly working memory; and the richness or flexibility of the stored cognitive structures to which the processes are applied.

### **2.6.2 How Dialogue Benefits Creativity**

As described in Section 2.4, encountering the ideas, perspectives, and knowledge of others adds to the richness of our cognitive structures. When we encounter new information during dialogue and actively work with it, our knowledge is benefited in multiple ways: we reflect upon and critically examine our own knowledge and understanding; we take some of the new knowledge that we have been exposed to, and, if it is accepted by us, we add that to our own knowledge; the added knowledge completes and deepens our own knowledge and understanding, and also diversifies it. Thus engaging in student-to-student dialogue has the potential to develop both the depth and the diversity of our knowledge, which exactly characterizes the type of knowledge which underpins creative thinking.

Knowledge is only half of what is needed for creativity to occur; the other required component is creative thinking, namely the cognitive processes associated with creativity. According to the literature, participating in student-to-student dialogue also has the potential to strengthen these cognitive processes, as will now be described.

According to Boden (2001), exchanging information with others in student-to-student dialogue is likely to increase the cognitive flexibility of the students, with cognitive flexibility being defined as the ability to switch between or simultaneously hold and consider two different perspectives. This is because the more we interact with others, particularly others who are different from ourselves, the more we become aware that our experiences and perspectives are relative, rather than universal (Leung and Chiu 2008), and the more we become accustomed to considering things afresh or from a different perspective (Maddux and Galinsky 2009). The ability to view a situation or object from two ‘unrelated matrices of thought’ (p. 82) is described by Chi (1997) as the essence of creativity.

Wegerif and Higgins (2010) provide more insight into how the way that we think is affected by participating in dialogue. They describe how our thinking shifts during dialogue; the nature of this shift is a shift of identity. As the identity we assume changes depending on the type of classroom talk in which we are engaged, so too our thinking changes.

During disputational talk, we have a strong sense of self. Consequently, our actions and thinking are those which act in the best interests of the self; our thinking during the dialogue is about “winning”, defending our position and overcoming competing positions. During cumulative talk, we identify with the group; because of this, our thinking seeks what is considered to be in the best interests of the group, namely to preserve its harmony. Consequently participants tend to agree with each other and to avoid challenging ideas or exploring reasoning. During exploratory talk, or dialogue, participants identify not with the self or with the group, but with the dialogue itself; they think and act in ways which are in

keeping with maintaining and advancing the dialogue. Because of this, participants in dialogue will challenge the group and themselves. They will question the positions and thinking of others in the group and will challenge their own positions and thinking as well. Their goal is the increased understanding which lies at the heart of dialogue, and participants act in ways which support this goal.

Because of this, during dialogue we are able to suspend our own thoughts and to compare them to the thoughts of others; we are able to hold different perspectives together in tension (cognitive flexibility). As we consider these different perspectives, competition or tension arises between them, and, as we determine which elements of each arguments have merit, critical thinking occurs (Wegerif and Higgins 2010). According to Wegerif and Higgins (2010), this same tension between competing arguments also gives rise to ‘the spontaneous generation of new ideas and insights which we call *creative thinking*’ (Wegerif and Higgins 2010, p. 24). Thus they provide more detail into how participating in dialogue develops both critical thinking skills as well as cognitive flexibility, both of which contribute to creative thinking (Boden 2001; Chi 2008; Leung and Chiu 2010).

The value for creativity of being able to simultaneously consider and compare different perspectives is confirmed by Mumford and Gustafson (1988). They found that more creative individuals are those who develop and use alternate understandings, identify facts that are inconsistent with those understandings, employ multiple understandings while problem-solving, and reorganize elements within an understanding.

## **2.7 Multicultural Experience and Creativity**

In the preceding section, we have discussed the role of knowledge in creativity, and, more specifically, the benefit of broad, and especially diverse knowledge for the creative process. An important generator of creative ideas is associations between concepts, with the connection between more distant concepts generally being more creative than less distant concepts.

If we consider the information that students share with each other during student-to-student dialogue, we can assume, in general, that the more diverse the students in the group, the more diverse the information that is likely to be shared. As knowledge is culturally influenced (Boden 2001), we can say that students in more diverse groups are likely to encounter new information more often than students in homogenous groups. This facilitates both the development of broad knowledge within those students (which is beneficial for creativity) and also is conducive to mental model revision, the importance of which for student learning has been outlined above.

Leung *et al.* (2008) hypothesized that multicultural experience had the ability to foster creativity in at least five ways. First, multicultural experience increases the number of ideas and concepts to which a person has been exposed, providing more resources to draw upon in the creative process. Second, multicultural experience can help us see that the same form or surface behaviour can have different meanings and implications than the cultural-specific ones that we ascribe to it, facilitating cognitive flexibility. Third, exposure to other cultures can lead to individuals drawing upon information from outside of their own cultural perimeters even when operating within their own culture. Fourth, having previously acquired and assimilated ideas from outside of one's own culture may make an individual more psychologically ready to seek out and/or assimilate other new information that he or she encounters. Finally, encounters with information, norms, and behaviours from outside of one's own culture necessarily lead to some degree of incongruence between these and those of one's own culture. The process of exploring and resolving these incongruities may lead to greater cognitive complexity for those who have multicultural experience, as well as foster the synthesis of seemingly incompatible ideas from diverse cultures.

In the past decade, a group of scholars has begun to explore the impact of exposure to other cultures on creativity. Just as diversity has been linked to creativity in organizations and work groups (Adler 2008), the idea is that multicultural experience, namely exposure to other cultures, increases the diversity which exists within a person. It is diversity on an individual scale. The idea is that someone who has qualitative experience with another culture over time expands his or her quantity of other-culture knowledge as well as broadens the perspective from which things are perceived.

To date there is relatively little evidence testing the hypothesized connection between multicultural experience and creativity (Bassett-Jones 2005; Leung *et al.* 2008; Maehr and Yamaguchi 2001). Leung *et al.* (2008) were the first to empirically establish a relationship between exposure to multiple cultures and creativity. They found that the extensiveness of college students' multicultural experiences was positively related to creative performance on a number of creativity-related tasks, and that multicultural experience also supported cognitive processes associated with creativity.

Maddux and Galinsky (2009) summarized 5 studies which identified a link between living abroad and creativity. Two of the studies showed a positive relationship between college students' time spent living abroad and their creativity levels (interestingly, time spent *traveling* abroad had no significant impact on creativity). In another study, students who had previously lived abroad were asked to reflect upon that experience just prior to a creative task. They were found to be more creative than participants who had also lived abroad but had not been asked to reflect upon that experience (primed) prior to the creative task. The



4<sup>th</sup> and 5<sup>th</sup> studies continued to focus on the creative effect of living abroad, but more specifically focused on the degree that the students had adapted to the second culture as a moderator of the living abroad/ creativity relationship. These studies found that the degree of adaption to the foreign culture positively corresponded to the level of student creativity, and also that those students who were asked to reflect on how they had *adapted* to the foreign culture prior to a creative task were more creative than those students who were not asked to reflect on their adaption to the foreign culture. It is important to state that the studies carried out by Maddux and Galinsky were conducted on both undergraduate students and graduate students, both in the United States and in Europe, and also used a variety of creativity measures, giving further support to the generalizability of their results.

Other research has varied the type of multicultural exposure. Leung and Chiu (2008) found that the multicultural experience of students, defined by such things as friends' and favourite musicians' ethnicities, type of favourite restaurant, and family immigrant history, predicted creative gift ideas. In another study (Leung *et al.* 2008), participants who were shown a 45-minute slide show of images comparing Chinese and American cultures were found to be more creative on a story-writing task than were participants who were shown slides of only Chinese or only American culture.

Fee and Gray (2012) examined the impact that exposure to cross-cultural experience had on creative thinking. They examined the creative-thinking capabilities of expatriates during the first 12 months of their overseas placement. They found that the expatriates experienced significant increases in overall cognitive flexibility and creative-thinking abilities compared to a control group of non-expatriates.

These studies indicate that mere exposure to others from different cultures is not enough; the benefit of exposure to others from different cultures is much more likely to occur when the individual interacts with these people, exposing him or herself to their ideas and perspectives.

Based on this research, it is plausible that multicultural student-to-student dialogue presents advantages to participants, as it exposes them to more new information and perspectives, which facilitates mental model revision as well as the development of the diverse knowledge which benefits creative thinking. It should be noted that no study was identified which explicitly tested this connection. Moreover, the studies referenced above did not explore why any identified connection occurs—what in the individual changes as a result of his or her multicultural experience? Certainly this is a promising area which warrants further research.

## 2.8 Deep Learning and the Generation of Creative Ideas

Sections 2.6 and 2.7 have described the relationship between learning and creativity. As we saw, both participating in classroom dialogue and interacting with others who are different from us are theorized to benefit student learning in ways which are conducive to creativity.

In summarizing the literature, Sawyer (2012) states that the learning which underpins the development of creativity in students is necessarily deep learning, and is characterized by students relating new ideas and concepts to previous knowledge and experience; integrating their knowledge into interrelated conceptual systems; looking for patterns and underlying principles; evaluating new ideas and relating them to conclusions; critically examining the logic of arguments; and reflecting on their own understanding and their own process of learning. Clearly the dialogue process asks its participants to do all of these things, and thus is conducive to the development of creative capability.

One focus of this study is to learn more about the process through which the students in this course generated the creative idea for their final papers. When one considers the generation of creative ideas, there are two primary competing theories. Idealist theorists hold to the idea that a creative idea appears, fully formed and ready to be implemented, in the mind of the individual (Sawyer 2012). Action theorists, on the other hand, argue that the creative idea emerges during the natural process of doing something, often when the individual encounters an obstacle which requires modifying the process or approach. This idea may be unrefined and preliminary, consisting of an initial instinct as to what new approach might work (Dyer *et al.* 2011; Sawyer 2012). Over time the idea is refined and modified based on what will best solve the problem at hand.

When we consider the generation of a creative idea, we see that all of the elements discussed above, namely having diverse knowledge, having deep knowledge, and being able to think in ways associated with creativity, contribute. The way our thinking changes as a result of learning is illustrated by Dufresne *et al.* (1992). They describe the difference between the knowledge and problem-solving behaviour of novices as compared to experts. The knowledge of novices is described as sparse, disconnected, poorly formed, and unrelated (silo'd); in contrast the knowledge of experts, meaning those with deep knowledge within the domain, is hierarchically structured and richly interconnected, and has multiple representations built into it. This is in keeping with Section 2.4, in which it was described how working with information both adds to and extends our knowledge (Chi 2008).

As described in Section 2.6.1, having deep and broad knowledge is important for creativity but by itself is not enough; the other component that is needed is creative thinking. Although the focus of Dufresne *et al.* (1992) is not creative thinking per se, we can see that their description of expert problem-solving behaviour has relevance for our understanding of how creative ideas are generated, as much of creative thinking is stimulated when we encounter problems (Finke *et al.* 1992). According to Dufresne *et al.* (1992), novices tend to problem-solve without applying concepts; they tend to attempt to solve the problem by focusing on the solution and working backwards, and to do so through the manipulation of existing variables. In contrast, experts apply their conceptual knowledge to the task at hand, work from the concepts towards possible solutions, and analyse the situation qualitatively in the attempt to identify possible solutions.

## **2.9 Conclusion**

The purpose of this study was to learn more about the practice of student-to-student dialogue as it occurs in the real world and how it might influence the generation of creative ideas in the participants. This chapter presented a review of the literature considered to be most germane to this purpose.

From the literature it is clear that student-to-student dialogue is considered to benefit student learning. The primary basis for this is grounded in the social constructivist philosophy of education, which holds that students learn more when they learn from and with each other (Barnes 2008). Although classroom talk can take many forms, student-to-student dialogue represents the form in which students are most active. Ideally, the students would lead the dialogue themselves and would interact with each other, with minimal participation from the instructor. Because students actively engage with the material being discussed, they learn more, a relationship that many studies have identified (Barnes 2008; Littleton and Mercer 2013). They also are exposed to new information presented by their peers, which stimulates their own thinking and expands their own knowledge. This is a reciprocal process, as each student is simultaneously engaged in an internal conversation which, when externalized to others during the dialogue, stimulates the other students' internal conversations; thus there is a repeating, interacting cycle, with each student in turn stimulating and being stimulated in their thinking by the knowledge and thoughts of others (Reznitskaya *et al.* 2009).

The literature regarding challenges which may occur in the practice of real-life student-to-student dialogue was also presented. The most common problem described in the literature has to do with low levels of student participation; this can be due to individual characteristics such as level of classroom apprehension, or due to contextual factors such as class size and seating arrangements. Overall, however the most important variables

identified by the literature had to do with the confidence of the student and how comfortable he or she felt in the classroom environment, particularly with peers and the instructor.

## **Chapter 3: Methods**

### **3.1 Introduction**

Chapter 3 describes the research methods used in this study. It begins by presenting the purpose of the study, including the research questions. The chapter then moves on to consider the research approach taken, namely a qualitative research approach. The characteristics of qualitative research are discussed, and the selection of this approach is justified.

As an important part of ensuring the reliability and validity of a qualitative study is to consider the inherent biases brought to bear on the study by the researcher, the role of the researcher is then described. The chapter then moves on to define the boundaries of the study, namely the research design (a single case study with imbedded units), the case selection, and participant selection. Procedures followed to ensure the ethical treatment of participants are also described in detail.

The chapter then describes the methods used for data collection (interviews and text analysis) and for data analysis. The chapter concludes by discussing the procedures used to ensure the reliability and validity of the study.

### **3.2 Purpose of the Study**

The purpose of this study was to learn more about the practice of multicultural student-to-student dialogue as it occurs in the real world and how it might influence the generation of creative ideas in the participants. The focus of this study was one class who completed the Evolving Contexts of Service course during the fall of 2013. This graduate-level course was student-to-student dialogue based.

In keeping with this, the research questions explored in this study were:

*RQ 1: What are the experiences of graduate students participating in multicultural student-to-student dialogue?*

- 1. What are the benefits of the dialogue for them?*
- 2. What challenges to the practice of student-to-student dialogue can arise?*

*RQ2: How does participation in multicultural student-to-student dialogue influence the generation of creative ideas in graduate students?*

- 1. How does the diversity of the class affect the generation of creative ideas?*

2. *How does the level of participation in multicultural student-to-student dialogue affect the generation of creative ideas?*

### **3.3 Research Approach: Qualitative**

The research approach selected for this study was qualitative in nature. Denzin and Lincoln (2011) define qualitative research as ‘a situated activity that locates the observer in the world’ (p. 3). Qualitative research is described as making the world visible because it transforms it into representations; in other words, qualitative research attempts to represent the real world. Moreover, in contrast to quantitative research approaches, which often tend to isolate and study specific variables, a qualitative approach is holistic—it attempts to understand a complex phenomenon as it occurs (Creswell 2014). Because this study focused on understanding a complex real-life phenomenon, a qualitative research approach was considered to be appropriate.

In considering the adoption of a qualitative research approach, it is important to consider its characteristics, particularly what differentiates it from a quantitative research approach. In addition to the two differences described above, other differences between qualitative and quantitative research approaches include that a quantitative approach attempts to gather and measure data in the form of numbers (Creswell 2005) while a qualitative approach focuses primarily on text and images (Peräkylä and Ruusuvuori 2011); a quantitative research approach asks narrow, specific questions (it seeks to confirm) while a qualitative approach asks open, broad questions (it seeks to explore) (Creswell 2005); similarly, a quantitative research approach generally evaluates data based on existing knowledge (deductive data analysis) while in a qualitative research approach, conclusions are formed from the data (inductive data analysis) (Elo and Kyngäs 2008). The role of the researcher is another significant difference between the two approaches; while in both quantitative and qualitative research approaches the goal of the researcher is to be objective, the role of the researcher in the research process is considered very differently (Creswell 2014). Because qualitative research is interpretist in nature (Denscombe 2010) the researcher recognizes the subjectivity he or she brings to bear on the research process. To the point described above, if in qualitative research we attempt to examine the real world and transform it into representations that we can analyse and within which we can find meaning, the researcher as interpreter will necessarily influence this process. The researcher is integral to this process and cannot be removed from it.

### **3.4 The Role of the Researcher**

With this in mind, it is appropriate to briefly describe myself and the inherent biases that I brought with me to this study's research process. Although my sincere intention was to be as objective as possible in gathering, analysing, and reporting the data, I was aware that, in keeping with the constructivist philosophy of research, every person had his or her own perspective, coloured by his or her experiences in life (Burrell and Morgan 1979). My hope was that by trying to eliminate my biases, I would at least minimize them.

Reflecting on the biases that one is likely to bring to a study in the role of the researcher is an important part of the process of conducting qualitative research (Denzin and Lincoln 2011; Flick 2007). On a personal level, reflecting upon the inherent biases that I have was important to do before commencing the research, as this brought them to the forefront and made me vigilant in my efforts to minimize them during the research process. As will be discussed below in Section 3.11, disclosure of my biases relevant to the research topic is an important part of ensuring the reliability and validity of this study.

I am a lecturer at the Rochester Institute of Technology. American by birth, I moved to Croatia during my late twenties and lived there for 12 years. It was during my time there that I began to teach within higher education. It was also during my time there that my love for discussion and dialogue in the classroom developed. The classroom that I was in consisted of mainly Croatian and Bosnian students, but also included many students from other countries, including Germany, Austria, Sweden, Montenegro, Kosovo, the United States, Australia, and Canada. As an instructor in the field of management, I was very aware of the cultural relativism of the material that I was teaching. Routinely I would present a theory or best practice, and then ask the class, "What do you think? Would this work in your country?" Inquisitive by nature, without making a conscious decision I began to more and more include discussion in my classes, based primarily on the belief that discussing the material helped the students understand it and absorb it, and certainly also on my own love of discussing ideas that I find to be interesting.

Over time a view of education which is very much at the essence of my teaching emerged. This belief is that any concept can be seen from many, many perspectives; that no individual's perspective is exactly the same as anyone else's; and that the more perspectives to which we can be exposed and that we can consider, the more completely we will understand the concept. The metaphor I often use in class is that of a prism; it can be seen from many angles, but the more angles from which we see the prism, the more completely we understand the essence of it. Having taught in multicultural classrooms for my entire teaching career (now in my 16<sup>th</sup> year, back in the United States and teaching primarily

students from the United States, the Dominican Republic, Saudi Arabia, Croatia, the United Arab Emirates, and China), I have many times witnessed students encountering, and with time embracing, ideas very different from their own. The look on their faces is that of revelation. Even before exploring learning theory, my observation was that when this occurred, the students were really learning and were learning in transformational ways.

While I do have a heavily discussion based classroom, I myself do not conduct dialogue to the same extent as that seen in the Evolving Contexts of Service course. While I embrace the value of students dialoguing with each other, in my classroom I tend to be a more active participant in the discussion than the course instructor described in this study. Although I am happy to step back and let the students discuss ideas at length, in general I am more often involved in guiding and extending the discussion. From a personal perspective, I am still in awe of the seemingly limitless amounts of new information and ideas that exist. Frequently a student provides an insight into material that I know very well, and have taught many times. For me, there will always be more to learn and it is through interacting with others, particularly those who see things quite differently that I do, that I tend to learn most.

How does this affect my role in the research process? I entered this research believing in the value of multicultural dialogue for student learning. The study is “backyard research” (Creswell 2014), namely I am studying a class at the institution for which I work, and within the program for which I teach. Additionally, I am a colleague of the course instructor included in this study. Several of the participants in this study have been students in classes I have taught in the past.

### **3.5 Research Design: Single Case Study with Imbedded Units**

Within the field of qualitative research, multiple research designs exist (Creswell 2005). The research design selected for this study was a case study, as a case study enables the researcher to ‘retain the holistic and meaningful characteristics of real-life events’ (Yin 2014, p.4), particularly because it explores a phenomenon ‘within its context using a variety of data sources’ (Baxter and Jack 2008, p. 544). In recent years the case study research design has become widespread in the social sciences (Denscombe 2010; Flyvbjerg 2011), due primarily to its appropriateness as a method for understanding complex social phenomenon (Yin 2014).

According to Yin (2009), a case study approach is appropriate as a research design when a) the focus of the study is to answer “how” and “why” questions; b) you cannot manipulate the behaviour of those involved in the study; c) you want to cover contextual conditions because you believe they are relevant to the phenomenon under study; or d) the boundaries



are not clear between the phenomenon and the context. According to Denscombe (2010), case studies differ from other research methods in that they focus on one occurrence of a thing rather than on multiple occurrences; in other words, although the purpose is still to gain insight into and to learn more about a particular phenomenon, a case-study approach focuses on in-depth exploration of one event, rather than on an overview of multiple events. Other characteristics of a case study research design include a focus on the particular, rather than the general; a focus on relationships and processes rather than on outcomes and end-products; a holistic view rather than an examination of isolated factors; researching something which occurs within natural settings rather than in artificial situations; and collecting data from multiple sources rather than using just one research method. Thus, Denscombe (2010) concludes that ‘a case study approach works best when the researcher wants to investigate an issue in depth and provide an explanation that can cope with the complexity and subtlety of real life situations’ (p. 55).

All in all, a case-study was considered to be appropriate for this study in that the aim was to gain an in-depth understanding of the student-to-student dialogue in the Evolving Contexts of Service course, as well as to understand how participating in this dialogue influenced the creativity of the students in generating the ideas for their final papers. It was considered to be appropriate for a retrospective study examining *in situ* processes.

Moreover, this study takes a constructivist philosophical approach, meaning that truth is considered to be relative and is dependent on one’s perspective. Because of this it was considered to be important to obtain the perspective of all those involved in the student-to-student dialogue, specifically the students enrolled in the course as well as the instructor. It was believed that by looking at the student-to-student dialogue from multiple perspectives, a more complete understanding would be obtained. Moreover, the context for the student-to-student dialogue was considered to be an influencer of it and thus important for inclusion in this study. For both of these reasons a case study research design was considered to be the most appropriate choice.

Specifically, the research design selected was a single case study with embedded units (Baxter and Jack 2008; Yin 2014). The research focused on the student-to-student dialogue which took place in the Evolving Contexts of Service course (the single case) drawing upon interviews and documents in order to attempt to understand this dialogue. It also considered the individual experiences of the students who took part in this dialogue; they were considered as imbedded units. This approach allows for data to be analysed within the subunits, between the different subunits, and across all of the subunits (Baxter and Jack 2008). In other words, this approach made it possible to consider individual student

experiences, to compare them, and also to aggregate them in order to understand the common experience of the course's multicultural student-to-student dialogue more fully.

The boundaries of the case study were defined in keeping with this study's research questions. First, the multicultural student dialogue examined was limited to that which took place in the Evolving Contexts of Service course during the fall of the 2013-2014 academic year. Second, this study examined only the dialogue which took place in this course; non-dialogue portions of the course (such as the instructor's presentation of the course material, course readings, or assignments) were not included in this study except when directly germane to the student-to-student dialogue.

The research conducted explored two main areas. The first was the student's (and students') experience with the dialogue (both on the individual and the group level). With the goal being of having a more complete understanding of each student's experience, interviews were conducted not only with each student but also with the course instructor. Student interviews not only asked about their own experience, but also the general dynamics of the class, which provided the context for understanding the student-to-student dialogue as a group experience. Similarly, the instructor was asked for his experience, but also for his perception of the experiences of individual students and of the group as a whole. Text analysis of the documents provided to students which introduced them to the practice of dialogue was also conducted, as these documents potentially influenced the students' experience with dialogue.

The second focus of the research was the creativity of the students. Text analysis was conducted on the students' final papers in an attempt to gain insight into those which demonstrated more creative ideas. Additionally, students were asked about the creative process, namely about how they had generated the ideas for their final projects.

### **3.6 Case Selection: Multicultural Student-to-Student Dialogue in the SERQ 710 Evolving Contexts of Service Course**

The case selected for this study was the multicultural student-to-student dialogue which took place in the SERQ 710 Evolving Contexts of Service course during the fall semester of the 2013-2014 academic year. The Evolving Contexts of Service course is a graduate-level course offered at Rochester Institute of Technology, located in Rochester, New York. This course was selected because it is heavily dialogue based, with student-to-student dialogue consisting of approximately 75% of the total class time. Beginning with the first class, students are taught the "ground rules" for student-to-student dialogue, and in each subsequent class are guided in its practice by the instructor. The Evolving Contexts of

Service course has the main objective of introducing students to the field of service management and to the practice of innovation within that field.

This course was also selected because the class composition was diverse both in the sense of consisting of a students from several different countries, as well as including students from different academic programs.

The final project of the course was a paper, in which students were asked to select an existing service company and to innovate upon one of that company's practices. This assignment is designed to demonstrate to what extent the course objectives described above have been met, namely understanding of the field of service management and the application of creative thinking within that field.

Because of this the course was appropriate for a study exploring the experiences of students participating in multicultural student-to-student dialogue (RQ1) as well as examining how participation in multicultural student-to-student dialogue influences the generation of creative ideas in graduate students (RQ2).

### **3.7 Participant Selection**

13 students were enrolled in the Evolving Contexts of Service Course during the fall semester of the 2014-2015 academic year. After obtaining ethical clearance (see Section 3.8 below), all of the students enrolled in the course were contacted via e-mail and asked for their participation in a face-to-face interview regarding their experiences in the Evolving Contexts of Service course. A copy of the e-mail sent can be seen in Appendix A.

10 of the 13 students responded, indicating their willingness to participate in the study; one student excused himself from the study as he was no longer in the country, while two students never responded, despite a follow-up e-mail being sent a week after the first.

### **3.8 Research Ethics**

As qualitative research approaches seek to explore the meaning that participants make from a particular phenomenon (Denscombe 2010), it is important, as in all research involving people, to follow correct ethical procedure to safeguard participants' well-being. The ethical considerations undertaken primarily focused on two things: to ensure the voluntary nature of the participants' participation, and to gather, analyse, and communicate the data in a way which ensured the participants' anonymity.

Initial contact with the participants was made through e-mail, in part because this approach made it easier for them to decline participation if they so wished (all they would have had to do was to not respond). After students had responded that they were willing to participate in the study, they were e-mailed the informed consent form (Appendix B) so that they would be able to review it in advance. The e-mail accompanying the consent form stressed that participation in the study was voluntary and if the student, for any reason, no longer wished to participate in the study, that he or she need simply notify me of this. I then scheduled the interview time. At the commencement of the interview I verbally communicated the nature of the study and its purpose; what information was being sought from the subject and how it would be used; and how the data collection process would maintain the confidentiality of the subject. I asked if the participant has any questions about any of this and responded as appropriate to any questions asked. I once again reiterated that the student's participation in the study was completely voluntary and asked if he or she was willing to participate. Upon the student's agreement, I presented them with two hard copies of the informed consent form and asked the student to sign and date one of the forms; the other copy was given to the student.

In order to protect each participant's anonymity, safeguards were also taken in the gathering and storing of data. Each subject was assigned a coding number. Interview notes and transcripts were saved under that student's coding number. The final papers of the students were accessed through RIT's online learning platform. Each of the papers was opened, and the name of the student (as well as any other identifying information) was removed; the file was then also saved using the student's assigned coding number as its title. So, for example, there was a file "001 paper" and a file "001 interview" for each subject. The list of student names with their assigned coding numbers was saved as a hard copy in a secure location separate from the data. This paper will be destroyed when the study is completed.

As the subject matter being discussed was not considered to be intrusive, it was believed that participating in the study represented minimal risk to the participants. Despite this, I was sensitive to their emotional state during the interview process. Fortunately I did not detect any sign of distress from the participants, but if I had I would have either moved on to a different question or ended the interview, depending on the severity of the situation.

In keeping with proper research ethics procedures, I obtained ethical clearance both from the Department of Education at the University of Bath, as well as from Rochester Institute of Technology's Human Subjects Research office, before commencing my data collection.

### 3.9 Data Collection

According to Peräkylä and Ruusuvuori (2011), qualitative research primarily uses two types of empirical methods: interviews and “naturally occurring” materials. In this case study, both of these methods were used. Data were primarily collected through interviews conducted with the course instructor as well as with the students who had agreed to participate in this study. Documents were also used; documents examined included materials used by the instructor in teaching the students how to dialogue, as well as the final papers of the students, in which they are asked to apply creative thinking to an organization’s practice.

Interviews were considered to be an appropriate method for collecting data from the participants as they are well-suited to gaining insight into people’s opinions, feelings, emotions, and experiences (Denscombe 2010). Peräkylä and Ruusuvuori (2011) define interviews as ‘accounts given to the researcher about the issues in which he or she is interested’ (p. 529) and describe their main strength as being that they allow the researcher to gain access to areas from which they would normally be restricted, such as individuals’ subjective experiences. As the purpose of this study is to gain insight into the experiences of the students enrolled in the course with the multicultural student-to-student dialogue, interviews were considered to be an effective primary data collection method.

Although interviews were selected as the most appropriate method for this study, it is important to note the limitations which may occur when gathering data through interviews. Although every research method has strengths and weaknesses, the greatest limitations which can occur whilst conducting interviews are those which impact the accuracy of the information being provided. This may happen for a myriad of reasons, including that the questions asked are poorly worded, ambiguous, or biased; that the interviewee tempers the information that he or she provides because of his or her perception of the interviewer, often exacerbated by differences in gender, ethnicity, status, or age (the so-called interviewer effect); that the interviewee provides information which is biased; that the interviewee presents only information which is favourable to him or herself; that the interviewee does not accurately remember the information being provided; and/or that the interviewee does not successfully articulate his or her meaning (Denscombe 2010; Yin 2014). As stated above, a primary strength of the interview as a research method is that it provides insight into the lived experiences of individuals; however, a necessary consequence of this is that the information provided is subjective. A key element of data analysis for interviews, as well as for case studies, is triangulation, namely that by comparing information gathered from multiple sources and in multiple ways, it is possible to reduce the level of subjectivity.

The effective use of the method of interviews requires that the interviewer conducts the interview appropriately. Although at first glance the process of conducting an interview may seem simple, this is not the case. It is important that the questions asked are effective questions, designed to gather the needed information from the interviewee. Conducting the interview itself also requires skill. As described by Yin (2014), the interviewer must simultaneously operate at two levels: he or she must follow his or her own line of enquiry (monitor and work towards progress in gathering the desired information) while at the same time interact with the interviewee in a way which encourages his or her free communication of information, as Yin terms it ‘putting forth “friendly” and “non-threatening” questions’ (2014, p. 107). The interviewer must have good listening skills (Stewart and Cash 2013) and be attentive to the interviewee throughout the interview; he or she must be sensitive to the feelings of the informant, must be able to tolerate silence, and must be adept at using prompts to encourage the interviewee to continue, probes to ask the interviewee for more information or clarification, and checks to verify that he or she has understood the information correctly (Denscombe 2010). Importantly, the interviewer must be non-judgemental during the interview, suspending his or her personal values and consistently maintaining respect for the interviewee who has agreed to share his or her perspective with the interviewer (Denscombe 2010).

For the purposes of this study, the interview format selected was that of a semi-structured interview. A semi-structure interview consists of prepared questions but also allows for spontaneity and the ability to make follow-up on comments during the interview (Stewart and Cash 2013). Given the consent of each participant, the interviews were audio-recorded.

The first interview conducted was with the course instructor. The purpose of this interview was to gain an overview of the classroom dialogue sessions in general, as well as to understand his rationale for using student-to-student dialogue as the primary pedagogy in the course. Prior to this interview, the documents used to teach the students how to dialogue were obtained and examined. These provided background knowledge of the instructor’s approach to dialogue and the resources made available to support students as they learned to dialogue with each other. The primary questions asked in this interview can be seen in Appendix C.

Following the interview with the course instructor, each student was individually interviewed. The primary purpose of these interviews was to better understand the experiences of the students in the student-to-student dialogue which occurred in this course. Students were also asked about how the idea for their final paper had been generated. The primary questions asked in these interviews can be seen in Appendix D.

In an effort to minimize an interviewer effect, namely when the information shared by an interviewee is influenced by his or her perception of the interviewer (Denscombe 2010; Stewart and Cash 2013), several steps were taken. Although I could not change my age, gender, ethnic origins, or professional status, I was most concerned with the fact that I was a faculty member interviewing students. Because of this, an on-campus coffee shop, considered to be more neutral and relaxed than other venues, was chosen as the interview site; I also made an effort to establish rapport and an informal and open communication style with the student participants before beginning the interviews.

Following the interviews, and as informed consent had been obtained from each student, I now had permission to access the participant students' final papers. Upon obtaining these papers from the course instructor, I learned that out of the 10 students who participated in the study, only 7 had completed the final paper in which they were asked to apply creative thinking to improving an organization's practice. Based on his perception of a low level of participation in the dialogue by some students and difficulties that some non-native speakers faced with the use of English, the instructor had given the students two options for their final projects: either the normal innovation project or critiquing an article which he supplied. Out of the 10 students I had interviewed, only 7 had chosen the innovation option.

After reviewing the papers, the course instructor was interviewed a second time. The main purpose of this interview was to access the instructor's perspective as to the individual experiences of the students during the classroom dialogue sessions. This interview was conducted after the individual interviews with the students in the class in order to minimize researcher bias in the student interviews. The primary questions asked in this interview can be seen in Appendix E.

### **3.10 Data Analysis**

#### **3.10.1 Interview Data Analysis**

The primary data analysis carried out in this study was an analysis of the data gathered through the interviews with the students and instructor of the Evolving Contexts of Service course. The procedure used for qualitative data analysis followed that described by both Denscombe (2010) and Creswell (2005). In keeping with the characteristics of qualitative data analysis, the process was iterative (Denscombe 2010) and the data was revisited numerous times. In general, however, the following procedure was utilized to analyse the interview data:

The first step of data analysis was to transcribe the interviews. Within a week of each interview the audio recording was transcribed. Although the process of transcribing an audio recording may initially seem straight-forward, in reality it lends itself to subjectivity, as the

transcriber is interpreting what he or she hears (Block 2000). For me, the goal of the transcription process was to literally record the words spoken by interviewer and interviewee. As such, I employed several methods to try to ensure the accuracy of the information contained in the transcripts. First, I was conscious of the potential subjectivity of the transcription process and strove to be as objective as possible during it. Second, after each transcript was completed, it was double-checked against the recording in order to verify its accuracy. Third, each participant was e-mailed the transcript of his or her interview and asked to verify its accuracy.

After this was completed, the transcribed data was read through several times in order to obtain a general sense of it. Certain passages were highlighted, and as I read the transcripts I jotted key words down in the margins. Next, an initial list of codes was created; the codes represented the key concepts found within the data in light of the research questions.

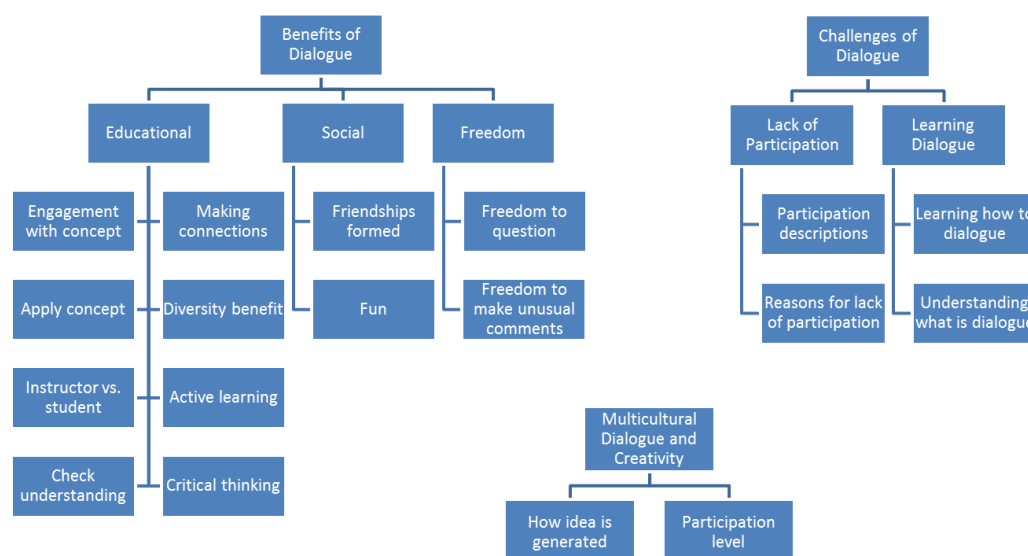
The coding process was conducted with the use of the HyperResearch 2.8 software program. All of the data gathered from the interviews was considered together. Transcripts from the initial interview with the course instructor, the student interviews, and the second interview with the course instructor were uploaded into the HyperResearch software program. Codes were created within the program. The transcripts were then read through one at a time, and passages relevant to individual codes were marked. Following the initial coding, reports were run which pulled all of the passages related to specific codes into individual reports.

These individual reports were then read through. This process led to two further steps. The review of the coding reports led me to notice that a few relevant passages from the transcripts (passages that I had remembered from my read-throughs of the transcripts) had not been included. Because of this, I went back into the coding software and re-read through the interview transcripts to ensure that all relevant data had been captured. Secondly, this review of the coding reports helped me to refine the codes used. In some cases, codes were eliminated because of a lack of evidence; in some cases, codes were added as a result of detecting additional areas of relevance and/or detecting greater complexity within an existing area.

These codes were then collapsed into themes. The final list of themes, subthemes, and codes can be seen in Figure 3.1. They focused on three main areas which were closely linked to the research questions. These were the benefits of dialogue, the challenges of dialogue, and the connection between multicultural dialogue and creativity.



**Figure 3.1: Data Analysis Codes and Themes**



### 3.10.2. Text Analysis

Text analysis was used to analyse the documents collected as part of this study, namely supporting course documents and the final papers of the students.

#### 3.10.2.1 Supporting Course Documents

These documents were supporting documents provided by the course instructor which were designed to help the students understand dialogue and the practice of dialogue. A formal analysis protocol was not followed in analysing these texts; instead they were reviewed and main themes were identified. The focus of the analysis was on understanding the role they played in the experience of the students involved in the course, particularly in learning about dialogue and how to dialogue. According to Peräkylä and Ruusuvuori (2011), this approach to the text analysis of these documents is both usual and acceptable, particularly when, as was the case in this study, the documents are not a primary focus of the research.

#### 3.10.2.2 Student Final Papers

The other documents examined as part of this study were the final papers of the students enrolled in the Evolving Contexts of Service course.

One challenge of creativity assessment is that many of the most commonly used assessment methods (such as the Torrance Test of Creative Thinking (TTCT) and the Unusual Uses Test) are applied in artificial, laboratory-like settings, and involve non-real-world tasks such as completing a survey or solving a puzzle (Sawyer 2012). As the Evolving Contexts of Service course had as its final project an assignment in which students were asked to apply creative thinking to an existing organization's practice, the choice was made to use these

final projects as a creativity assessment. Namely, the focus was on examining the creativity demonstrated by the students in a real-world academic project in which they were specifically asked to be creative.

The method used to analyse the creativity level of the papers was the Consensual Assessment Technique (CAT) (Amabile 1982). Although this assessment technique is most commonly associated with Theresa Amabile, it was first used by Mihaly Csikszentmihalyi in his doctoral dissertation and was first published in Getzels and Csikszentmihalyi's book, *The Creative Vision*, in 1976 (Sawyer 2012).

The Consensual Assessment Technique relies upon Amabile's socio-cultural definition of creativity, namely, 'a product or response is creative to the extent that appropriate observers independently agree it is creative. Appropriate observers are those familiar with the domain in which the product was created or the response articulated. Thus, creativity can be regarded as the quality of products or responses judged to be creative by appropriate observers, and it can also be regarded as the process by which something so judged is produced' (Amabile 1982, p.1001).

Although designed as an assessment method for so-called Big-C creativity (creative products which make a contribution to their field), the CAT is the most widely used assessment method for little-c creativity (the creative products of ordinary people) (Sawyer 2012). Its use is considered appropriate for higher education settings, including the assessment of students assignments (Baer and McKool 2009; Hennessey *et al.* 2011).

In the CAT, creative products are evaluated by two or more experts in the field, these ratings are averaged, and this average rating is used as a measure of the creativity of the product. Importantly, the very nature of the assessment is subjective; experts are not given any definition of creativity, but instead are asked to use their own subjective definition in assessing the creativity of the products (Amabile 1982). Additionally, proper procedure dictates that experts assess the creativity of each product in comparison to the other products in the product pool; thus the assessment is relative, rather than in comparison to an external standard (Baer and McKool 2009).

According to Amabile (1982), a qualified judge is someone who has enough experience in the domain to have developed some implicit criteria for creativity; judges do not have to have equal levels of experience. A more recent article co-authored by Amabile (Hennessey *et al.* 2011), de-emphasizes the importance of having raters be "experts" within their field in favour of the criteria just mentioned, namely that they have enough experience to have developed some implicit criteria for creativity. According to Hennessey *et al.* (2011), highly

reliable assessments have been obtained using children and non-expert adults as raters. What is important to the effective use of the CAT is that the raters have expertise which matches or exceeds those producing the works being rated.

According to Baer and McKool (2009) and Hennessey *et al.* (2011), the CAT has high inter-rater reliability; this reliability also provides construct validity (Amabile 1982) in that if the judges agree that a product is creative it must be considered as such (Hennessey *et al.* 2011).

For the purposes of this study, the course instructor was asked to rate the seven final papers included in this study according to the creativity demonstrated by each paper's main idea. As a professor in the area of organizational innovation, the course instructor was considered to be adequately qualified to make this determination. In keeping with proper procedure for the use of the CAT, the papers were given to the course instructor in random order. He was asked to rate each paper according to the creativity of its main idea on a scale from one to ten. No papers were allowed to have the same rating.

Without reviewing the rating made by the course instructor, I also reviewed the papers according to the same criteria. The papers were rated in random order. The ratings made independently by the course instructor and myself were then averaged to produce an overall rating for each paper. These ratings were then compared to the level of student participation in the student-to-student dialogue, as described by themselves, their peers, and the course instructor, in order to determine what effect, if any, their participation level may have had on the creativity of those students' final papers.

One limitation of this study was that the panel of raters consisted of only two individuals. According to Amabile (1982), the reliability of the CAT is in keeping with the number of raters, with higher reliability generally occurring in proportion to the number of judges.

### **3.11 Reliability and Validity of the Study**

As described at length by Creswell (2014) and Denzin and Lincoln (2011), reliability and validity in qualitative research have different meanings than they do in quantitative research. A primary goal of quantitative research is to generalize any findings to the population being examined; in qualitative research, it is the exploration of individual experiences that matters (Flick 2007).

Although the purpose of the two research approaches differs, gathering data using reliable and valid methods is fundamental to both (Creswell 2005). For qualitative as well as quantitative research, it is important that data is collected and analysed in the best and most accurate way.

For qualitative research, validation of the findings has to do with following proper procedures during the research process. Qualitative validity is defined by Creswell (2014) as ‘determining whether the findings are accurate from the standpoint of the researcher, the participant, or the readers of an account’ (p. 201). Within qualitative literature, validity is often described with such words as “trustworthiness”, “authenticity” “transferability” and “credibility” (Guba and Lincoln 1998). To this end, the following validity strategies were employed in this study:

- Different sources of data were triangulated against each other (Creswell 2014; Denscombe 2010);
- Each participant was asked to verify the accuracy of the transcript from his or her interview (Denscombe 2010);
- Rich, thick description was used to convey the findings (Creswell 2014);
- Disconfirming findings were included in the description of the research results (Creswell 2014); and
- The biases of the researcher were clarified (Denzin and Lincoln 2011);
- The data analysis method used was reviewed by this study’s research supervisors.

Qualitative reliability has to do with the consistency of the researcher’s approach (Creswell 2014), including that it is described in enough detail that it could be replicated (Yin 2014). In keeping with Creswell (2014) several strategies designed to ensure the reliability of this study were employed. These included creating and following a set procedure for conducting the interviews; following appropriate methods throughout the research process; using multiple methods of data collection and analysis (triangulation); and describing all details of the research process, including the purpose of the research, subject selection, data collection procedures and data analysis methods, as well as disclosing the role of the researcher in the study. It should also be noted that the software package utilized in the data analysis process, namely HyperResearch 2.8, while being an accepted and effective medium for data analysis, is notable for its simplicity of use (Lewins and Silver 2010). Thus the use of it is believed to have enhanced the replicability and reliability of this study.

### **3.12 Conclusion**

Chapter 3 described the research approach and design used in this study. The purpose of this study was to learn more about the practice of multicultural student-to-student dialogue as it occurs in the real world and how it might influence the generation of creative ideas in the participants. It is believed that this can best be done through exploring the individual experiences of the students and course instructor of the Evolving Contexts of Service course. As a qualitative research approach focuses on exploring the experiences of

individuals in real life events, it was deemed to be most appropriate for this study. Amongst the array of research designs included within qualitative research, a case study research design was selected as it accomplishes the objectives of qualitative research, but does so using a variety of research methods. It was believed that this was a strength given the purpose of the study, in that a case study research design would facilitate a more comprehensive and holistic understanding of the multicultural student-to-student dialogue which took place in the Evolving Contexts of Service course.

In Chapter 4 we will consider the results of the data collection and data analysis process, namely the results of this study.

## **Chapter 4: Results**

### **4.1 Introduction**

Chapter 4 presents the results of this study. As described in Chapter 3, the primary form of data collection was through interviews conducted with the course instructor as well as with the students who had agreed to participate in this study. Text analysis was also used; documents examined included materials used by the instructor in teaching the students how to dialogue, as well as the final papers of the students, in which they are asked to apply creative thinking to an organization's practice. In keeping with the process outlined in Section 3.10, the collected data was analysed in order to gain insight into this study's research questions.

The chapter will begin the story of the multicultural student-to-student dialogue which took place in the Evolving Contexts of Service course with some background information, drawn primarily from the first interview conducted with the course instructor. This section focuses on the instructor's objectives in using student-to-student dialogue in the course and also on the process he used to structure the dialogue and support the students in learning how to dialogue. Although this information does not precisely fall within one or the other of this study's research questions, it was considered important to include as it "sets the stage" for the information to follow, and is important for understanding the student experiences to be described. Additionally, demographic information about the student composition of the class will be presented.

The chapter will then move on to present the results as relevant to the two research questions. As described in Chapter 3, the research questions were the guide by which the data analysis process took place, and the data will be presented according to the process through which it was analysed. Specifically, the initial focus will be on the benefits that the students believed they obtained from participating in the multicultural student-to-student dialogue which took place in the course. The chapter will then move on to present the challenges which arose during the practice of the student-to-student dialogue. Finally, the chapter will present the results of the data analysis in the light of the second research question, which had to do with how the generation of the creative idea for the final paper was influenced by the diversity of the class, and by the level of the student's participation.

## **4.2 The Instructor's Use of Student-to-Student Dialogue in the Evolving Contexts of Service Course**

According to the course instructor, the Evolving Contexts of Service course (which students usually take in their first semester of the Service Leadership and Innovation program) sets the stage for the rest of the program. The two main concepts of the course are systems integration and future thinking, which are key concepts of the SLI program.

Student-to-student dialogue is an integral part of the course. The course is structured so that face-to-face class sessions (held for three hours one evening of the week) consist entirely of dialogue from the beginning of the 15-week course through Week 8; following Week 8, 2-3 more class sessions are dedicated to dialogue. This means that out of the 15 weeks of class sessions, approximately 11-12 of them consist almost entirely of student dialogue about the course concepts.

### **4.2.1 Student-to-Student Dialogue Used to Help Students See Things Differently**

The role that dialogue plays in the class is pervasive and fundamental. According to the instructor, a key goal of the course, and indeed of the program, is for students to “see things differently”, the meaning of which encompasses both questioning and uprooting assumptions that they have, as well as exposing them to perspectives other than their own (and thus introducing them to the idea that there are multiple ways of looking at things). The course instructor believes that ‘there is very, very often no basis for what they believe, or it is a limited view’.

The practice of dialogue is introduced from the first class, and that in-and-of-itself tends to destabilize students who are often used to a classroom where the teacher guides the class and discussion. Instead, as is described below, students are placed in a conference room where they face each other; instead of listening to the instructor they are expected to collectively analyse and critique the concepts; and the instructor himself sits out of the main zone of activity, on a chair in the corner. If students begin to look at him when speaking, he will get up and move around the perimeter of the room so that those students are not able to have eye contact with him. Clearly he intends to be an observer of the main activity of the class, which is student centred and led. For many students, this way of conducting a class challenges their assumptions about how class “is supposed to be”.

In addition to helping students see things in new ways, dialogue is also used because it facilitates student learning. The instructor describes how students will “know” the concepts, but not be able to apply or extend them; according to him, they gain this ability through the dialogue.

The course instructor also used the dialogue to assess students' knowledge levels. If they were just repeating words from the textbooks or other student's words, he assessed that they did not fully understand the concept, that they had not engaged with it. He said, 'They understand what the concept is, that's the knowledge piece, but they don't use, it serves no purpose for them. And they often fall back to the old system. And just about in every case, I'll catch them at using the wrong terms, for example, I'll say something like 'as long as you mean "satisfaction" really means "experiences" or "value", if you really mean that, that's cool, but I sense that you're not, because you're still using "satisfy"'. Most often you see it in the form of they'll repeat what the book says, but then have no clue as to what an example is, or what it really means, and when you see that, that's what's going on'.

One challenge in the beginning was that some students thought that he was just looking for "the answer" but in reality he was looking for their ability to critically examine the concepts under discussion. Some students would be hesitant to participate because they were afraid of giving a wrong answer; it took some time for them to understand that it did not really matter whether the answer was right or wrong, but rather what mattered was to critically consider the concepts.

#### **4.2.2 Introducing students to the practice of student-to-student dialogue**

During Week One of the semester, both the course concepts and the practice of dialogue are introduced. Regarding dialogue, the concept is introduced verbally, with the course instructor describing student-to-student dialogue and how it differs from other types of classroom discussion. According to the course instructor, the main points that he emphasizes are the difference between dialogue and debate, namely that the purpose of dialogue is increased understanding rather than convincing others that you are correct; that student-to-student dialogue is meant to be student-led, and thus students should listen to and consider each other's comments, and then comment on them in turn; that all comments made by students are to be accepted and thoughtfully considered; and, finally, but very importantly, that the goal of the dialogue is for students to reflect on what they know and don't know, to learn, but also to question their own assumptions.

During the Week One class, students practice dialoguing as time permits. Prior to the next class, they are given the assignment of reading instructional materials related to dialogue which are posted online. Starting with Week Two, the class consists of student-to-student dialogue, which continues through Week Eight. According to the course instructor, the normal expectation that he has is that students will experience 'a rapid progression through about Week 5, maybe, to getting really good at it'.



The Week Two dialogue session is a practice session and is not graded; however, starting with Week Three, the instructor posts a dialogue grade which is updated following each class session. This serves as a form of feedback to the students as to the level of their practice of dialogue. The course instructor said, ‘You still have people, maybe 1 or 2 in the 70s, a larger group in the 80s, and then, 4, 5, or 6 in the 90s. They’re really starting to get there, starting in Week 5’.

According to the course instructor, generally about 40 to 60 percent of the students in a typical Evolving Contexts of Service course are able to develop to the point of effectively participating in student-to-student dialogue. He described how it takes time for students to learn how to effectively dialogue, and that even then there will be some that don’t ‘get it’. He described how a fundamental shift within the student occurs from the traditional teacher-led format/one correct answer model to the student-led format/many correct answers model. From his experience this shift has to occur for students to effectively engage in dialogue. He described how some students, who ‘don’t get it’ will participate in the dialogue a set number of times because they believe that this number is what is needed to get the participation points. Additionally, sometimes students will participate in the dialogue, but their comments are not designed to further the dialogue but are rather designed for the instructor’s ears. At one point he described this as ‘making up interesting questions for the instructor’; at another as ‘telling you the “correct answer” instead of their answer’.

The idea of “seeing things differently”, introduced in the first class, is further reinforced in Week Two. Week Two, which is spent practicing student-to-student dialogue, focuses on discussing two articles: *First, Let’s Fire All the Managers*<sup>1</sup> and *Coming Attractions: Nobody in Charge Society*<sup>2</sup>. Both articles present ideas of self-management, in other words, workplaces and societies without supervision. Most students find the material in these articles both interesting and stimulating, which not only serves to promote the idea that things might not have to be the way that they’ve always assumed they should be but also as rich fodder for the first full-fledged student dialogues. As the instructor described, ‘They get that because it’s an extreme, and they have to move somewhere to think like that. And that makes it easier to get into a dialogue scenario. So they’ll either say, ‘here’s all my reasons’ or ‘I can see that, but not today’. It’s a big change for them because I don’t tend to get in their head and say ‘no, you’re out to lunch’, they tell each other that, and that’s good practice for dialogue’.

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<sup>1</sup> Hamel, G. (December 2011). *First, Let’s Fire All the Managers*. *Harvard Business Review*, 89(12), pp. 48-60.

<sup>2</sup> Cleveland, H. (2002). Chapter 2 in *Nobody in Charge: Essays on the Future of Leadership*, San Francisco: Jossey-Bass, pp. 16-31.

During the dialogue sessions themselves, the instructor absences himself as much as possible from the dialogue. As described above, the course in question was held in a conference room, where the tables were arranged in the shape of a rectangle. Students sat at various points around the rectangle, so that they faced each other, while the instructor sat not at the tables, but rather on a chair placed in a corner. During dialogue the students are instructed to talk to (and look at) each other, which is something that the students often had a hard time doing, especially initially when they would tend to respond to another student's question or comment while looking at the instructor. When this occurred, the instructor would indicate with hand signals that they should talk to, and look at, other students, or, as described above, he will move around the room so that they are forced to look at classmates instead of at him. Additionally, the instructor was not an active participant in the dialogue, instead only stepping in when direction or clarification was needed to continue the dialogue and was not forth-coming from the group. If questions were directed at him "too early" (i.e. when he thought the group could still answer it), he would deflect the question back to the class either directly or by asking the class another question related to the first. The instructor could be described as a facilitator of the student-to-student dialogue.

The course instructor usually began the class with a brief (10-15 minute) overview of the main concepts from the assigned readings. Following this, he would retire to his seat in the corner, and the floor would be turned over to the students. As the instructor said, 'They ask the questions. They made the example and you want to talk about it, so you guys talk'.

Now that we have considered the background of the use of student-to-student dialogue in the Evolving Contexts of Service course, namely the course instructor's objectives in using it as the primary pedagogy of the course as well as how he structures the student-to-student dialogue, we will consider the student-to-student dialogue which took place during the fall semester of 2013.

#### **4.3 Student Demographic Information**

In Table 4.1, the demographic composition of the class can be seen. Out of the 13 students in the course, 5 were female and 8 were male. The country of origin is indicated as it has significance as to which students were native speakers of English and which non-native speakers (only those from the United States were native speakers of English, all others spoke English as a second language) as well as establishes that within the class international students were the majority; the class consisted of 5 students from Saudi Arabia, 4 students from the United States, 3 students from China, and 1 student from the Dominican Republic. All students were between 21 and 30 years of age.

**Table 4.1: Student Demographic Information**

	Gender	Country of Origin	Program	Participated in Study
Student #1	Female	China	Hospitality & Tourism Management	yes
Student #2	Male	United States	Hospitality & Tourism Management	yes
Student #3	Female	Saudi Arabia	Service Leadership & Innovation	yes
Student #4	Female	Dominican Republic	Interdisciplinary Studies	yes
Student #5	Male	China	Hospitality & Tourism Management	yes
Student #6	Female	United States	Hospitality & Tourism Management	yes
Student #7	Male	Saudi Arabia	Hospitality & Tourism Management	yes
Student #8	Male	United States	Service Leadership & Innovation	yes
Student #9	Male	Saudi Arabia	Hospitality & Tourism Management	yes
Student #10	Female	China	Hospitality & Tourism Management	yes
Student #11	Male	Saudi Arabia	Hospitality & Tourism Management	no
Student #12	Male	Saudi Arabia	Hospitality & Tourism Management	no
Student #13	Male	United States	Service Leadership & Innovation	no

#### **4.4 Benefits of Multicultural Student-to-Student Dialogue**

##### **4.4.1 Dialogue Helped Students Learn**

Although many benefits of the multicultural student-to-student dialogue were identified by the students, the most commonly cited benefit of student-to-student dialogue was that it

helped the students learn. Every student, with the exception of Student #8, mentioned this as a main benefit of the student-to-student classroom dialogue.

#### **4.4.1.1 Students Engaged More Deeply with the Concepts**

Students in the course described how they understood the concepts more completely because of the student-to-student dialogue. Student #10 described how the course concepts were quite difficult to understand; what helped her understand them were the in-class dialogue sessions. She said, ‘I felt the concepts from the material were very abstract, professional and hard to understand even if I read the entire article, such as Delivering Profitable Value, Service Dominant Logic and Co-production. During the dialogue, we brought a lot of examples came from real life to help us understand the concepts’. The student-to-student dialogue also helped students to think more deeply about the course concepts. Student #1 emphasized that while in dialogue all of the material may not be covered, what is covered is considered in depth. According to Student #7, this is achieved by continuing to question until whatever is being discussed is understood. He said, ‘From the dialogue you can keep asking others about your idea to go deep, deep, deep until you understand what is the problem. Like peeling the onion. Yea, you just go deep, deep, deep, until you just catch the problem, what’s the real problem, what’s the real answer’.

Student #7 also emphasized that in dialogue the discussion kept going even after “the question was answered”. He said, ‘That dialogue was really, really helpful because we listened to other students and the questions don’t stop by one student even if he gives the right answer; it keeps going to other students, why did the student say that, why do you think this idea, OK, there is no right answer, you just go deep, deep. So that’s what I like in that class’. Deep comments from one student would stimulate even deeper thoughts from others; as Student #5 said, ‘During others talking other thoughts you have a deeper thought in your mind’. In this way the interaction between students led them to think more and more deeply about the concepts being discussed.

#### **4.4.1.2 Connections Stimulated by Other Students’ Comments**

Another benefit described by many students was that the student-to-student dialogue helped them work through the material concurrent to the actual dialogue, specifically that other students’ comments stimulated connections within their own minds. Student #3, Student #4, Student #6, and Student #8 all emphasized the connections that they made in response to the student-to-student dialogue.

During her interview Student #4 described a time when she e-mailed the course instructor prior to class with a lot of questions she had had about the assigned reading, which she had

found to be confusing. According to her, the course instructor had replied ‘You know what? We will address these questions in the class, the next class’. She then described how, in class, ‘I found myself answering the questions that I really had and I said, “whoa! I didn’t know that!” I didn’t know that I would be able to find the answer and to be right with that answer’.

When I asked her why she thought this had happened, she said, ‘I think because of the interactions and different ideas that the other students have... they say a word and I start thinking “oh that could be possible” linked to this, this, this, this and started just...constructing it’.

#### **4.4.1.3 Dialogue Helped Them Apply the Concepts to More Diverse Situations**

When analysing the data, the consistent theme of the benefit of the dialogue to their learning was that their fellow students helped them apply the course concepts to a variety of different real-world situations. This was a benefit not only of the dialogue, in which students share their experiences and critically examine the concepts, but also of the diversity of the class composition, which enriched this interaction.

Student #8 was the only student interviewed who felt that he would have learned more if the course had been conducted in a normal classroom lecture format. Yet his description of his experience in the course revealed the transformational effect it had had on him. The reason for this seemed to lie in the application he made of the course concepts, ‘making the connection between the content and day to day life’, as he described it. He felt that the course concepts illuminated the situations he encountered in his day-to-day work life, revealing to him what was really going on in them as well as the most effective way to handle them. Although he felt that he would have learned more if the course was conducted in a traditional classroom lecture format, the main benefit of the student-to-student dialogue he described was that it helped him make connections, to apply the material to the real world.

Although for Student #6 the effect of applying course concepts to the real world in the dialogue was less transformational, it was a key advantage of the student-to-student dialogue for her. Throughout her comments are references to questioning whether a concept applies to the real world, wondering how something that works in her own area (hospitality) would apply in another, and so on. She said, ‘For me it just helps me apply it to the way I don’t think. Cause the questions I come up with are questions based strictly on my hotel experience. So when you ask me a question and then you say, “how would it work in a restaurant?”, just strictly in the hospitality field I really don’t know because that’s not how I interpret things. If you give me a definition, I take the definition and say, “well in a hotel

this is how this applies”, and then if you say “in a restaurant, or in a college or at a library how does this apply?”, I have no idea and I really have to challenge myself to put myself in those shoes and then think outside of the box without really knowing the limits of the box, I guess’.

During her interview she described often challenging the comments of others by asking them how what they had said would apply in one situation or another; because of this her comments were often mentioned by other students (for example Student #3 and Student #8) as being particularly helpful, of pushing them to think more deeply about the topic, to connect it to other things, and to understand it more completely. For her, it is as if the concepts themselves are only valuable if it can be determined that they are useful in the real world; she had little use for theoretical knowledge and talked repeatedly about how easy it is to just read an article and understand a concept, but described doing so in a disparaging way, for example ‘what’s the point of reading it if I can’t apply it?’ and ‘I can memorize anything, but I can’t walk away and really know what that means in a practical or situational way’. What matters for her is if it applies to the real world and the student-to-student dialogue served the function of helping her to determine this. At the same time, she valued other students’ examples because they were authentic, they were from “the real world”. In one example, which will be discussed in more detail below, she described how hearing about average wait times in Chinese restaurants from Chinese classmates’ own experiences was so much more valuable than reading ‘based on research in China, the average wait time is 34 minutes’. As she says later, ‘The textbooks saying 34 minutes wait time means nothing to me’.

Student #6 also felt that this course was more valuable for her than a traditionally formatted course because ‘on a weekly basis we are taking it, applying it, and then asking questions about it’. She described how in traditional courses this is not something that occurs as often. She described this course as ‘a constant realistic course’ and later as ‘constant learning’.

#### **4.4.1.4 The Diversity of the Class Helped Students Learn More**

As described in Section 4.3, students were from different countries and different programs of study. This diversity was mentioned by every student except Student #2 as a key advantage of the student-to-student dialogue, as it gave them an opportunity to see things from different perspectives. Student #3 focused on how in dialogue students interact with each other more than during classroom discussion, which she described as being more ‘responding to the professor’s question’. This combined with diversity meant that in the student-to-student dialogue students interacted more with each other and were exposed more often to new perspectives and ideas. As Student #7 said, ‘In dialogue, you’re going to hear new ideas or new information so you can comment from that point’.

Students, particularly those without work experience, also mentioned that it benefited them to dialogue about the concepts with others who had work experience. Even those with work experience benefited from hearing about how the concepts applied in professions different from their own.

When asked for an example of a time that the dialogue helped him to understand a concept better, Student #9 gave this response: ‘Well, one of my friends, she is actually my classmate, and she worked in a hotel, and what really helped me is that she always brings examples from where she works. And there were some other students who were also working....I’m not sure where they were working, but they always bring up examples of, like real-life examples, and apply what we’ve been discussing in class, apply it to their work, so that would be a very useful way to learn, it makes it easier for students to understand the concept’. Student #6 and Student #3 described similar situations, where dialoguing with others from different academic programs helped them to more fully understand the concepts being discussed and how to apply them.

In addition to being from different academic programs, students were also from different countries. One classroom exchange that several students (Student #3, Student #6, and Student #1) mentioned had to do with a Chinese restaurant chain, Hai Di Lao. It is interesting what each of these students took away from this example. Student #3 mentioned this as a source of information; she talks about how hearing about how restaurants try to entertain people who are waiting in line in China helped her to think about ways to make wait times in any service organization more pleasant. For Student #6, this example served more to show her that what she assumed to be true was not necessarily so. She seemed incredulous that people would wait for a long time in China and not be bothered by it, and referred to how for her this would be unacceptable. Another example from China that she repeatedly mentioned is that the use of credit cards is not very common there; as a hotel employee, she immediately considered how the hotel systems that she is used to would not function in the same way in China.

This same interaction was mentioned by a Student #1, a Chinese student, as illuminating the differences between what Chinese and American customers value at restaurants. For her, Hai Di Lao is ‘very customer oriented’ but through the discussion of the way this restaurant interacts with its customers, she saw that in the United States these same behaviours might not always be appreciated. She described how in Hai Di Lao ‘if they hear someone say something they will immediately interact with the comments from the customer’ and then continues on to say ‘there is a culture difference because in China because people are really concerned...you, you will feel loved, that’s really good, but if you in U.S. and they do, they

open like new restaurant in U.S. but people won't feel comfortable because it was too close, they say "oh, you are interrupting me".

Other students valued learning more about other cultures. Student #10 described how, as someone from China, she had little knowledge of the Middle East and found the examples mentioned by the Saudi students to be very interesting. Student #6 emphasized how learning more about other cultures was beneficial for her in the hospitality industry, and how she had thought that she knew quite a bit about other cultures, but saw, through the dialogue in this class, how much more she had to learn. She said, 'It taught me culture not from what I see but from what others do and see'. In the end, she found this interaction with others with different experiences from her own to be very beneficial for her learning, saying 'I can apply what I've seen and I've learned, and I've experienced and have questions on what they've seen and experienced, and combine the two, which most classes don't teach you'.

#### **4.4.1.5 The Instructor and the Students Contributed Differently to the Class' Learning**

Although the course instructor wished for the dialogue to be student-led, and had implemented several different techniques to facilitate that, students in the Evolving Contexts of Service course clearly saw the benefit of both discussing the course concepts with their peers, but also, and perhaps more importantly, the role of the course instructor in guiding their discussion. A key responsibility of the course instructor was that of an expert. Student #9 described it in this way: 'If I ask a question or if I answer an incorrect answer, a student could add something to what I said. Then he or she could be right or could be wrong. Then, at the end, [the course instructor] would say the correct thing and he would point out, if I did answer it correctly or not'.

Another key responsibility of the course instructor in the student-to-student dialogue was as a facilitator. He would indicate if the dialogue was 'headed in the right direction' (Student #6), would clarify the course concepts if the students became confused, and would also ask questions as needed to stimulate or guide the discussion. Many students mentioned how 'vague' the questions he asked, and, upon occasion, the answers he gave, were. Student #6, Student #7 and Student #9 recognized that this was designed to make them think more deeply about the topic and to stimulate them to think about the concept being discussed in different ways. At times the course instructor would provide them with an idea, an idea which challenged the class to extend their thinking about the concepts. Student #5 described the course instructor's thoughts as 'inspiring', saying that he 'brought up and saw that I never saw before... he just threw you a thought and let you think about it'.

Student #4 described how the students and the course instructor contributed differently to the dialogue. According to him, the course instructor provided the content and some



examples, while the students' contribution was primarily considering that content vis-à-vis their experiences in the real world. In other words, the main material generally came from the course instructor, and the application of the material came from the students. He described how this difference made it easier for him to contribute in class, saying: 'Students are the same role in the classroom, they are just students so when you see another student sharing something about their experience you might be then, to be familiar with your own experience and say "oh, he said that so I could think of an experience similar to that that I could share in-class". So you don't have this constraint that the professor is the owner of the knowledge and the one who knows everything, we already know he's the expert but you know in terms of the dialogue session I think it's really helpful that we have both components'.

Although the most significant benefit of the student-to-student dialogue identified by the students was that it enhanced their understanding of the course concepts, both due to the process of dialogue as well as the diversity of the class, there were two students who felt that they would have learned more if the professor had lectured about the course material instead: Student #8 and Student #10. Despite this, Student #10 still preferred the student-to-student dialogue as a classroom format because 'the class would feel boring by one person talking'. In contrast, Student #8 would have preferred a traditional classroom format. Early in the interview, he described his preferred learning style as being in a classroom, listening to a professor, and processing the information as he listened, having time to 'stop and think'. He felt that in the student-to-student dialogue this time was lacking, as there was pressure to 'respond immediately'. Although he gained a lot from the class, as described above, he felt that what he gained was from the course material and the actions of the course instructor during the dialogue, which 'provoked' him to think about the concepts more deeply. For him, making connections was the key to his positive experience in the class. As he described it, 'Other people were scrambling and like, "what's he want now?" kind of thing, while I was just sitting there, like, "oh my god, that makes sense!"' However, according to him this reaction was in response to the instructor's comments and questions rather than information shared by his classmates.

#### **4.4.1.6 Because the Student is Active, He or She Learns More**

A point emphasized by Student #4, Student #6, and Student #10 was that they had learned more because they were active during dialogue. As Student #6 said, 'I learn better when I can discuss it'. During dialogue she was active, and she was applying the knowledge, or 'practicing' it, as she phrased it:

*'The concept that I had the opportunity to...to have an exercise to think about a real-world...environment, I could say that it's*

*different than the one we just pick or talk or read and I didn't have the opportunity to practice it. I don't know if it's because of my way of learning because I learn by doing. I don't know if it's the case for everybody. But for my perspective I think it change in...in how...how much I could practice it during the course.'*

Student #4 emphasized the benefit of being able to 'build your own learning' through student-to-student dialogue. For her, 'doing it yourself' compared to 'waiting for the professor to give you everything in class' was the main benefit of dialogue, described consistently as 'an opportunity'. Both Student #4 and Student #8 emphasized the importance of learning on your own before class, for example by going through and reflecting on the readings. The idea was that the greatest benefit from the dialogue would be obtained if they learned on their own, and formed some basic thoughts about the concepts, and then were able to build on that foundation in the dialogue session itself in order to extend their knowledge. For Student #4 'the roles are switched'—it is up to the student to learn about the concepts and to present that knowledge in class, while 'the professor is more a facilitator, the person that is there to make sure that you understand the concepts, to clarify your doubts, to help you in the process of learning'.

Both Student #4 and Student #6 emphasized that how much a person benefited from dialogue was dependent on the degree to which he or she actively participated. Student #6 said, "When people didn't participate I don't see how they could take as much'.

#### **4.4.1.7 Students Can Check if Their Understanding is Correct**

Part of the process of actively engaging with information is to evaluate your own knowledge and make revisions as necessary. For several students, namely Student #2, Student #5, and Student #9, a benefit of the student-to-student dialogue was that it helped them to verify whether their understanding of the course materials was correct or not. A key component of this benefit was that this verification occurred earlier in the learning process than it would have in traditional classrooms. They each described how in traditional classes understanding of the material is not usually checked until the exam, which presented two problems: first, for some longer period of time their understanding would be incorrect and, second, that their grade would be penalized for this incorrect understanding. Instead, in dialogue, they were able to see in a timely fashion whether their understanding was correct, and to do so without their grades being affected.

Student #9 described this process in the following quote, but simultaneously also identified another advantage of feedback during dialogue, namely that the new information is more easily absorbed:

*'Let's compare it to the exams or the tests. If you take an exam or you do a paper or take a test, most of the time students don't go all through their answers after their feedback or their paper gets corrected, they just read it really quick and then forget about what they have learned. But in a dialogue we have the opportunity to think and then say or ask or answer our questions and then receive information or an answer to the question that we asked. So it's immediate interaction, an immediate feedback. And if you think you're right and your answer was wrong, it's also an immediate feedback where you can correct your information and you will never forget it because you had the wrong information and now we have the right thing. But on a test, or on a paper, you don't remember what your answers were and what you have said in the paper, you just look at it, if you, if you did look at the paper after you pass or get your grades...'*

Student #9 also described how his desire to verify his understanding during student-to-student dialogue influenced the questions that he asked. His questions were designed to check whether he understood the material correctly or not. Because of this, he would 'ask the same questions'. When asked what he meant by this, he said 'I would ask any question related to the topic, and sometimes I asked the same question using different words, just to make sure that I understand'.

#### **4.4.1.8 Enhanced Critical Thinking Abilities**

Student #3, Student #5, and Student #6 all believed that their critical thinking skills were enhanced as a result of participating in the student-to-student dialogue in the Evolving Contexts of Service course. For Student #3, this was because the course instructor required that 'if you say agree or disagree, say why, giving the reason'. She continued, 'Sometimes I have an answer agree or disagree but I figure out the reason, or I can't figure out, "Ok, why?"'. But when he forced us to bring the reason with the answer, my critical thinking has been improved, my ability. I have thought a lot and made connection between my answer and the others'. Students #5 and #6 similarly described the benefit of learning to ask 'why'. According to Student #6, this led her to see increased complexity. In the exchange where she described how her critical thinking skills were enhanced, she focused on learning to question why she and other believed what they did to be true; at the end of the exchange, she concluded with this comment: 'In grad school hopefully as a student you're looking for more than yes, no, correct; if you're not, maybe you should re-evaluate being here because....I'm not very satisfied with yes, no; what about maybe, can there be a maybe in there? Can there be a why?'.

For Student #4, the practice of dialogue is something that she believed would be beneficial outside of the classroom. For her, the ability to ‘dig deeper’ into concepts, and also the ability to truly listen, without ‘trying to anticipate what you are going to say next’ were skills that she felt would benefit her in her professional life. Similarly Student #6 described the liberation of feeling that it was OK to question, something she learned through the student-to-student dialogue. As with Student #4, she felt that this transcended the classroom and had benefited her in her professional life as well. At one point she said that she ‘learned more personal things than academic things, overall’. When asked what she meant by ‘personal things’, she said ‘Like I said, I always put it back to work. So at work it’s even helped me, even on my performance reviews, you don’t question things enough and you’re so OK with doing, you know, saying yes when sometimes you have to say no. So this class obviously allowed me to question anything and ask ridiculous questions and be one step ahead of the situation presented. Whereas before, I kind of felt like a jerk, not negative, but thinking ahead and not wanting to say what I’m thinking because it comes across as negative, when I’m thinking of possibilities that could go wrong. But now I’ll just “well, it’s realistic enough to ask so I’ll ask it”’.

#### **4.4.2 Social Benefits of Student-to-Student Classroom Dialogue**

In addition to the benefits of the student-to-student dialogue for their learning, students identified social benefits as well.

##### **4.4.2.1 Student-to-Student Dialogue is Enjoyable**

In addition to helping the students engage with the material, and also test their understanding of it, many students described student-to-student dialogue as simply a more interesting and engaging way to learn. Student #2, Student #5, Student #6, Student #9, and Student #10 simply enjoyed the class. Student #6 and Student #9 both described the class as “fun”; when asked what made the class fun, Student #9 cited the discussion element of it, saying ‘I love to talk and I love having discussions’.

Student #9 described how he learned better because the student-to-student dialogue was enjoyable, a thought also expressed by Student #2, Student #5 and Student #6. He said, ‘In classrooms if you’re just sitting there and, you know, just listening to the professor or to the lecture, at some point you get bored. But if you participate and you think, and you hear others say something, they correct you, it’s more of a fun way to learn that just sit there, listen and watch. And it makes students think before they ask questions, before they answer, instead of just listening. And they might have questions during the lecture, but at the end, when it’s time to ask questions, they might forget their questions. But in dialogue you can just raise your hand and then ask the question that comes in mind, so I think it’s more fun’.

Student #2 echoed a similar thought about the benefit of being active, saying ‘It’s very active and very engaging so I prefer to be involved instead of just listen to the teacher talk. I have them and it’s just not as enjoyable’.

#### **4.4.2.2. Friendships Formed**

As the course progressed, the students got to know each other better. Student #6, Student #9, and Student #10 all described how friendships were formed in the class. At one point in his interview, Student #9 referred to another classmate as ‘my friend’, though he clarified that it was in the Evolving Contexts of Service course where they met each other. Student #10 cited as a main benefit of the student-to-student dialogue employed in the course that it made ‘classmates closer’. All three students talk about the difference that this made to the class itself, describing the atmosphere in the classroom as being amongst friends, especially later in the semester. For Student #9, this made him more comfortable in expressing his thoughts while Student #6 and Student #10 emphasized how it made the class more enjoyable, more like ‘talking with friends’ (Student #10) than being in class.

#### **4.4.3 Freedom to Speak Without Being Judged**

Another benefit of the student-to-student dialogue identified by several students was the freedom that the student-to-student dialogue gave them to express ideas that they believed were valid, but would normally fear that others might find odd. Several students described the freedom to ‘say anything’ (Student #3) as a main benefit of the course. Some students, such as Student #5 and Student #7 focused on being able to speak without worrying whether their comments would be judged to be right or wrong, and how this contributed to their feeling comfortable sharing their thoughts in class. Student #5 said, ‘You know because I’m from China. And uh, Chinese people can be a little bit shy. They have some thoughts but are not... afraid to say it. They are afraid to say it. Because, they are afraid to make mistakes. So, uh, at first couple of class I was shy I don’t want to say something like that. Afterwards, no matter what I said [the course instructor] just say good that’s...he don’t care what you say is wrong, well hope that you said something wrong because others would help you fix it so you could know more about it’.

Student # 6 and Student #7 both described the freedom to express unusual ideas as a main benefit of dialogue for them. In the following exchange with Student #7, we see not only that he valued feeling comfortable speaking without worrying that his comments will be judged to be correct or incorrect, but also valued the freedom to say things that others might not always be able to understand, and for this to be accepted.

Student: *‘The benefit of dialogue, you will not be afraid of sharing your idea, because other classes sometimes if you give wrong*

*mistakes, if you bring wrong answers, maybe some other students are going to laugh at you or the professor might, like uh, say something to you, but in this class, because we go deep, there is not strange answer. Every answer is respected. So, it benefited me to just think and go deeply and think about like strange answer. Because I remember [the course instructor] saying that there is no wrong answer in this class. So you can share your magic, your idea, so...from this point we go randomly asking student randomly and go deeply, if we stop by student and he didn't know the answer we just continued and from this point we go deep, deep, deep until we solve the problem.'*

Interviewer: *'What do you mean by "strange answer"?''*

Student: *'Like stupid answer'*

Interviewer: *'What makes it stupid? or strange?'*

Student: *'Sometime you go far away than the area of the answer maybe it's true or not but others receive it as "what are you talking about?". But some, let's say smart minds, maybe get the point of going far away from the point. So that's what I mean by stupid answer.'*

For Student #6 the freedom to question was pivotal to her experience. Throughout her interview, two main themes emerged: the first was that dialogue helped her apply the course material to the real world (as described in Section 4.4.1.3); the second was the freedom to question and to ask 'crazy questions', as she termed it. Part of this seemed to be related to being a little bit of a provocateur; as she said, 'I always play the devil's advocate regardless of how logical the opposite is'. However, overall her focus on questioning others seemed to be linked to her processing of the material, of trying to understand how it applied to the real world. My observation was that it was almost as if she would ask aloud the questions she had in her mind as she worked to connect and apply the information. When asked about the benefits of 'crazy questions' she described how they helped her learn about areas other than her own, and consequently to understand the material better. Later, she talked about the importance of participation in the course, but interestingly for her participation was defined as asking questions. She said, 'In this class if you don't ask questions you have no idea what is happening, what you're supposed to take from this class. You can't really learn in this class if you don't do anything'.

This is in a way related to the comments made by Student #7 in that both described normally being concerned that others will consider their comments (for Student #7) or questions (for Student #6) as “wrong” or “stupid”, not understanding the thought that they are trying to express or the importance or relevance of the question being asked. In one exchange, Student #6 said, ‘It’s like a perfect class to focus, there’s no stupid question. A lot of professors will say that and then “well, you might not think that it’s stupid, but everyone else in the class will”. And I don’t want everyone... but this class you can ask anything and the crazier it was the more intrigued the professor was, instead of being like ‘[her name], stop saying, stop talking’.

#### **4.5 Challenges to the Practice of Multicultural Student-to-Student Dialogue**

##### **4.5.1 A Lack of Participation from Some Students Negatively Impacted the Dialogue**

Although most students focused on the positive aspects of their experience with dialogue, it became clear through the interviews that challenges had occurred as well. The most significant challenge to the practice of dialogue was the low level of participation by some students in the dialogue. The overall impression reported by the students was that although they actively participated in the class, too many of their peers did not. Estimates of the percentage of students who actively participated in the student-to-student dialogue varied from 85 to 90% from Student #9 to 20% from Student #8. According to the course instructor, this class was the second worst that he has taught (in over 20 years of teaching heavily dialogue based courses) when it came to the ability of students to engage in effective student-to-student dialogue. Amongst those that did actively participate in the dialogue, the course instructor felt that the quality of the dialogue was high; the problem was that too many students did not participate as much as he felt they should have. He did describe, however, that by the end of the course, most students were able to effectively dialogue. Student #2, Student #6, and Student #8 described the same thing, namely that while overall during the dialogue too many students were not participating enough, that by the end most of them were dialoguing.

This lack of participation from some students was seen as negatively impacting the student-to-student dialogue. The first negative impact cited was that at times the student-to-student dialogue would stop, requiring the instructor’s intervention to stimulate the dialogue to continue. Students felt that this happened more often than it should have, more often than it would have if more of the students had participated more frequently. Student #8 described the course instructor as being ‘involved too much’, but said that it had to be that way or the dialogue would never have kept going: ‘sometimes it was dead silence and other times he would say a few more words to kind of provoke some more conversation or he would take it over’. This could be in the form of additional comments or questions for discussion, or by

calling on people who were not participating to do so. He said, 'He [the course instructor] would call out people from time to time or say "hold off on this group, let's hear from this side of the class" kind of thing'.

The second negative impact of a low level of participation in the dialogue was that the comments made by those who minimally participated were not perceived to be of high quality. It seems that this was caused by some students who did not like the student-to-student dialogue and felt pressured by it; they would tend to participate only to the degree that they had to, either because the participation was graded or because the course instructor called on them.

Although no student told me directly that he or she did not enjoy the student-to-student dialogue, several did mention that they felt that others in the course did not enjoy it. Student #9 mentioned this; when asked how he could tell that other students did not seem to enjoy the dialogue, he said that you could tell because they would not participate. Student #8 said that he felt that some students felt 'intimidated' by the dialogue, that it was not 'conducive to a lot of people's level of comfort'.

Student #3, Student #5, Student #6, Student #8, and Student #9, as well as the course instructor, described these students as not seeming to be engaged in the dialogue, but instead just saying something when called upon or in order to earn participation points. Consequently these contributions to the dialogue were perceived by some as contributing little to it.

For some, such as Student #6, students would simply repeat what others had said previously, adding nothing new to the conversation; for her, this was because they were just participating because they had to earn the participation points. Student #8 similarly commented that some of the comments made by some students were of low quality: 'I know there were times when people would say something that I thought wasn't super-relevant or OK, really, this doesn't make any sense, or we talked about that 10 minutes ago'. He attributed that to being called on in class saying 'He would call on other people and they would nervously kind of stumble on saying something'.

For the course instructor, the perceived low quality of the comments made by some students presented a different problem. As described in Section 4.2.1, the comments made by students during the dialogue were a way for him to assess the degree to which they understood the course concepts. For him comments which simply repeated what others had just said or which are not very relevant indicated that the students did not really understand the material.



#### **4.5.1.1 Participation Not the Same as Engagement**

It should be noted, however, that students who did not participate very much in the dialogue could still be engaged in it. Both Student #2 and Student #4 differentiated between students who were actively listening to the dialogue, though not speaking very often, and those who were doing neither. Additionally, both Student #4 and the course instructor talked about people who did not speak very often, but when they did say something, made a significant contribution to the dialogue. As Student #2 described, even if students were not participating very much, their body language revealed whether they were engaged in the dialogue or not: ‘You can look at them and their body language and judge that they’re actively listening and participating and the people who don’t really kind of...just kind of just laying back, you know they’ll lean back in their chairs, they kind of sit there and look around and a lot, you can just tell by their body language how actively someone is listening’. During his interview Student #7 made the following comment: ‘Some of the students participate just one or two times and then become busy with other stuff, like his laptop or doing some writing, so I would pick out the active one’.

Student #4 was careful not to equate someone who did not speak often in class with someone who was not actively engaged in the dialogue. She said, ‘I don’t know if it’s related to engagement or because they might be really interested in the class but not willing to share what they learn. And usually, those shy students, when they share their thoughts were really interesting and insightful. So...I don’t know. I could say they were engaged even they do not participate as the rest of the classroom’. Later she said, ‘I think that the fact that one student speak more than the other does not mean that is good or bad at dialogue. Maybe one student that do not speak or does not speak much, the few times that he or she speaks is really consistent, is really profound, is really in the concept and shows really a understanding of what he’s talking about’.

From the interviews it appears that when one considers the level of participation, there were three main groups of students. The first group consisted of students who were engaged in the dialogue and actively participated in it; the second group consisted of students who were engaged in the dialogue but participated less often; and the third group seems to have been less engaged in the dialogue and often participated only because they were pressured to do so.

#### **4.5.1.2 Language Barriers Were Believed to be the Primary Reason That Some Students Did Not Participate**

Many students referenced that a lack of participation in the student-to-student dialogue could be caused by multiple factors. Being uncomfortable in the class (wanting to be passive when the student was required to be active) or not having very much work experience,

which made it more difficult for them to participate in the dialogue, were identified by Student #8 as possible reasons for low levels of participation; he also identified personality as a possible factor. Student #9 described how students' lack of participation in the course could be influenced by their knowledge of the topic or lack of preparation for class. Student #4 and Student #5 talked about how if a student was naturally shy, it would be more difficult for him or her to participate. Student #7 emphasized that a student's communication abilities (in general, not related to whether he or she was speaking in his or her native language) would influence the effectiveness of his or her participation in dialogue. Student #6 talked about how for students who have gone to school in more formal types of educational systems, learning how to dialogue, which in and of itself is difficult, must be even more so.

Yet the main reasons cited for a lack of participation in the dialogue was that some students' levels of English were low enough to make participation difficult. This was mentioned by Student #2, Student #6, Student #7, Student #8, Student #9, as well as the course instructor, as the main reason for low levels of participation by some students. This quote from Student #2 was characteristic of the comments made by many of the students: 'The fact that, you know English might not be somebody's first language might hold them back from, you know, speaking up, so maybe there could have been more things said, but they could have been nervous to say it, something like that. But for the people who were comfortable speaking English, I mean for the most part it seemed like everyone was fine'.

For Student #6, a lower level of English ability would keep students from participating as much as they should because 'we'll use terms they're not familiar with so it's hard for people whose English isn't as advanced to participate and even understand the conversation we're having and follow it'. She continued on to describe the gap she perceived must exist between what native speakers and non-native speakers understand from the dialogue; that even though both are interpreting the same thing, 'there's a huge gap between what I'm taking from it and what someone else is taking from it'. When asked how she could tell that this gap existed, she said that non-native speakers would tend to repeat what others had said. She said, 'So I would say, you know, um, "we're going towards the experience economy and are no longer a service economy" and they'll say "it's not a service economy anymore"'. She also described that sometimes they wouldn't understand a word but they wouldn't ask what it meant: "So if you said "front desk, front desk of a hotel", they don't know that that means "reception", but they have to ask for us to explain that to them that way. They don't ask and they don't know what I'm saying'.

During the first interview I conducted with the course instructor, he identified two main reasons behind why some students did not participate as much as he believed they should have. One had to do with mindsets of individual people, but particularly of some students

who were not from Western countries. The instructor described how the educational model that they were used to was so different from that used in the class that adjusting to the practice of student-to-student classroom dialogue was more difficult for them than students from more culturally similar countries. However, facility with the English language was identified by the course instructor as the most significant barrier to effectively participating in the dialogue. At one point he says 'If I spoke Arabic, I'm sure they would get it'.

For Student #2, the "language barrier", as he called it, was the main reason why some people were not engaged in the dialogue. He described the difficulties of the course content, saying that 'a few of the Americans we would, you know talk after class and we'd have to confirm with each other or talk with each other about "what was he talking about?" and I can only imagine what it's like for some of them. And they come up to me after class to understand what's going on and they have missed something or...so yea. We tried helping them out as much as we can but even there were times where I had to ask people so...it's... his style is he makes you think very in-depth, it just doesn't work for some people with their language barrier being there so...that's always hard'. He also described how if English was not someone's first language they might be nervous to speak up in class.

A positive effect of having other students ask him for help was that he focused more on making sure that he understood the course material. He said, 'I tried to be as much of a leader as I can with all the people who didn't speak English, as well most of my friends here are now Saudis and their language is not particularly...their speaking skills weren't exactly the best at the beginning so they always came to me and asked for help and everything so it kind of made me listen a bit more as well so I could try to help them out'.

When considering all of the evidence as a whole, it does seem likely that language challenges faced by non-native speakers played a role in lower levels of participation. As just described, every native speaker of English as well as the course instructor mentioned language as the main reason for a lack of participation; Student #9, a non-native speaker, also gave this as the main reason for a lack of participation by some students. At the same time, every non-native speaker with the exception of Student #9 described the challenges that they faced as non-native speakers of English; Student #9 described difficulties in understanding other non-native speakers because of their accents, though this is a challenge that any person might face and is not necessarily something that has to do with being a non-native speaker. Some (Student #1, Student #3, Student #4, Student #5, and Student #7) also said that during the first few classes they tended to participate less because of these challenges. However, Student #3, a non-native speaker of English, believed that students did not participate less because of language challenges. She said, 'Anyone can share. Anyone can say anything, ideas, or questions, or suggestions. Also, [the course instructor]

understood us well regarding difficulties with the language, or we are not following in speaking in English, but he understood us’.

#### **4.5.2 Language Presented Challenges to Participation for Some Non-native Speakers**

As just described, every non-native speaker in the class with the exception of Student #9 described experiencing difficulties in understanding and keeping up with native speakers in the student-to-student dialogue. Student #1 described challenges with the rate at which native speakers spoke; others, such as Student #5 and Student #7, described not always understanding the vocabulary that they used or the jokes that they made. Student #1 and Student #4 described having difficulty following the flow of the dialogue, particularly when the dialogue jumped from one topic to another.

Student #1 described how this made the dialogue very confusing, saying ‘because we international students sometimes after class we discuss like “oh I’m so confused, what can I say? What can we do?” Students and the professor are talking to each other like, well like the TV shows, so sometimes we international students feel that way, I think compared to the native students we are not very good at dialogue because they’re great’. Student #5 said ‘the American people know all the jokes, all the phrase, all the words that [the course instructor] said but some of us we didn’t know that, we just freeze when they say something funny or they say something else that we don’t know’.

For Student #10, participating in the dialogue could be difficult because of the pace of the dialogue during which she needed to concurrently focus on understanding what was being said while thinking about something that she can say: ‘In some dialogues we did before, it tended to American classmates talking. They felt more relax and began talking quickly. My English is not good so I feel this part was a little hard for me because I need to focus on what they were talking about and had no time to figure out the new thoughts to continue the dialogue. Anyway, like I said, this confusion maybe just happened on me’.

Another challenge mentioned by Student #3, Student #4, and Student #9 was difficulty in understanding other non-native speakers when they spoke. In Student #3’s response to the question as to whether she learned more from other students or from the course instructor, she said, ‘Some of us were international students. When one of us give information it may be ambiguous, not clear, but (the course instructor) could clarify it or explain it for us. I think that was his role. When we get confused, he can explain to us. I understood him more than international students when he spoke’. For Student #7, however, having other non-native speakers in the class made it easier for him to participate; he described being intimidated to speak in other classes where he was the only international student. However,

in this class he ‘was comfortable to participate and share my ideas’ because other students were non-native speakers like him.

Some students described difficulty in understanding the course instructor; Student #1 mentioned not being able to understand him clearly while Student #5 described him as speaking ‘very fast’. Student #9 mentions a Saudi student ‘who was struggling with [the course instructor’s] accent’.

Student #3 did not believe that language was a barrier which prevented anyone in the class from participating in the dialogue, and she felt that non-native speakers of English contributed to the dialogue as much as the native speakers did. Yet she described her own experience with dialogue. She, an international student, was consistently cited by others in the class as being one of the core group of highly active students; in this group, she was the only non-native speaker. I found the terminology she used in describing how she came to be active in the dialogue to be memorable—she said that she became active ‘after the barrier of shame was broken’. When asked what she meant by this, she said ‘The barrier of shame because I’m not very fluent in speaking in English and there were 4 or 5 native speakers plus 2 Saudi students were very fluent in speaking English. But first time just I felt hesitant, in the beginning, but then I passed that’.

#### **4.5.3 Student-to-Student Dialogue Was Something New That They Had to Learn How to Do**

Students consistently described that the way the Evolving Contexts of Service course was conducted, namely that it predominately consisted of student-to-student dialogue, to be unusual. In keeping with one of the course instructor’s main objectives for the use of dialogue in the Evolving Contexts of Service course, many students described being alienated at the beginning of the course. From the first class they knew that this wasn’t going to be a traditionally-taught course.

This comment from Student #4, in which she described her reaction on the first day of class, illustrates this:

*‘When I first went to the classroom and I saw you know not all the chairs were aligning in front of the... the white board as we are supposed to do, I just saw a table like a conference meeting and the professor there and all the students around the table and I said “oh what’s going on here” and then I asked one of the students and I said “you know what, I think that I do not understand that because the English is not my first language maybe?” And she said “no it’s*

*just the way it is and you will get it” and I need to say that at first I was a little afraid because for me the instructions were not really clear...and then the classmates said “you know, don’t worry about it, you will be fine, just try to see how the course goes and you will do it” so at first it was, well it was difficult, I need to say it. But difficult not because of the content ...or... I think what makes it difficult is I was not used to it. It was not my natural way of learning’.*

Student #2 explained how his undergraduate degree was from a large university, so ‘dialogue like that is definitely new’. Student #7 described how he told his friends what they were doing in class and ‘it was new to them. They don’t know what is dialogue’. He also said that for the first two classes he was ‘just sitting there and just looking at others while they were answering’ as he wasn’t familiar with dialogue. Student #9 described a similar process for learning how to dialogue—he just observed for the first few classes and then based on that he determined what he was supposed to do.

Student #2, Student #6, and Student #7 described finding it difficult to get used to the idea of students being responsible for keeping the dialogue going. They described adjusting to responding to each other’s comments rather than to the course instructor’s comments and comments made by other students in response to those questions.

The other characteristic of dialogue to which students mentioned having to adjust was the philosophy of dialogue, namely that the goal is to understand, rather than debate, and consequently all ideas are accepted and considered. Student #3, Student #4, Student #5 and Student #10 initially thought that dialogue was just discussion. Student #1, Student #3 Student #4, Student #7, and Student #10 mentioned the idea of any idea being accepted as notable.

As the course progressed and students became more familiar with each other and the practice of dialogue, they became more comfortable with it. Most students reported that they felt comfortable with dialogue around the third or fourth week of the semester. More students participated and participated more often. Student #3, Student #4, Student #6, and Student #9, in describing their own experiences, talk about becoming more confident.

Now that the results of this study as related to the first research question have been described, the results of the study as related to the second research question will be presented.

#### 4.6 Multicultural Dialogue and Creativity

As described in Chapter 3, seven of the students included in this study completed a final paper for the Evolving Contexts of Service course in which they were asked to apply creative thinking to improving an existing company's practice.

During my interview with the students, they were asked how they had generated the idea for their final paper. I was interested in whether the multicultural student-to-student dialogue in which they had participated had had any influence on the generation of this idea.

Additionally, I was interested in whether the student's level of participation in the student-to-student dialogue was reflected in any way in the creativity level of his or her paper.

Table 4.2 contains the results of the analysis of each student's participation level and the creativity level of his or her final paper; note that only those students who completed the innovation paper for their final project are included. The final column summarizes how the idea for student's final paper was generated, information which was gained through the student interviews.

The determination of the level of participation in the dialogue was made based on the course instructor's comments as well as the comments of other students in the class as to levels of participation amongst the students in the class. As described in Chapter 3, the creativity level determination for the final paper was made using the Consensual Assessment Technique (Amabile 1982). It should be remembered that the quality of the paper in general was not considered; instead the exclusive criteria for the assessment was the degree of creativity of the final paper topic. The rating scale used for the CAT was one through ten, with one representing a low level of creativity and ten representing a high level of creativity.

**Table 4.2: Summary of Results Concerning Student Participation in Dialogue and Creativity**

Student	Participation in Dialogue	Creativity of Final Paper	Idea for Final Paper
Student #2	Moderate	1	Desperation, idea not innovative
Student #3	High	8	Flash of insight
Student #4	Moderate to High	6	Application of course content; some small innovations, but mostly integrating ideas from other industries mentioned in class
Student #5	Moderate	3	Copied ideas discussed in class into his home country

Student #6	High	4.5	Existing idea that had occurred to her at work; developed it for the assignment
Student #7	Low	7.5	Flash of insight due to frustration in service experience
Student #10	Moderate	10	Flash of insight due to perceived need she experienced in her interaction with a service organization

Student #2 was described by the course instructor as initially participating to get the participation points and that at times the comments he made were irrelevant or seemed to consist of whatever came into his head; however, towards the end of the semester he ‘started being really serious about it’. In my interview with him, he described how the idea for his final paper was basically arrived at out of desperation. He talks about how he ‘sat for 4 hours staring at the computer screen’ trying to think of a topic for the paper. He really struggled to find something, calling his father thinking that perhaps he could do something for the family business, but still was not able to come up with any idea for his paper. Finally he settled on the topic he chose.

Student #3 was consistently described by classmates and the course instructor as one of the students most engaged in the student-to-student classroom dialogue. During her interview she described how, up until the Friday before the paper was due, she didn’t have any ideas for the paper. However, as she was in the library Friday morning, swiping her smartphone to gain access, she had the idea of using thumbprint identification technology for her paper; at first she thought about applying it to a vending machine, but she quickly dismissed this. She then thought about applying it to ATMs.

Student #4 was described by the course instructor as, out of the ‘really good ones, the one who spoke the least’. Similarly, references to her by her classmates tended to note that she participated, but she was not normally grouped with the 3 students who were regarded to have participated the most in the student-to-student dialogue (Student #3, Student #6, and Student #8). However, as the course instructor said, even though she did not participate as much as the other ‘really good ones, when she did you better be listening, because it was something typically profound’. Her paper focused on improving the customer experience of medical clinic customers in the Dominican Republic. It did include a number of small innovations; during her interview she described how many of these were ideas that she had encountered during the course that she later incorporated into her final paper. She



acknowledged that while their implementation in the Dominican Republic might be new, they ‘might be done in other places’. For example, she talks about the idea of having a children’s play area at the medical clinic as coming from the class discussion of a Chinese restaurant providing this for their customers’ children as they waited in line. She said, ‘I try to put together in a totally different space where you wouldn’t think about that’.

Student #5 took a main concept that had been used as a talking point in the course (students were asked to innovate on a hotel from the perspective of technology and customer experience) and put those ideas into a hotel in China. He came up with the idea because of the assignment, and he thought that the main ideas that they had talked about in class would be good for a hotel in his hometown, which experiences quite a bit of tourism. Thus he took existing ideas, which had been described in class as appropriate to applying innovation to a hotel, and applied them to a hotel in China.

For Student #6, her idea for the final paper was something that had occurred to her previously while at work, and she just developed the idea for her final paper. The focus of her final paper was an app that hotel staff could use to gather background information on hotel guests.

The idea for Student #7’s final paper was to integrate smart technology into dining tables in restaurants, so that customers could order and pay without waiting for their server. This idea resulted from frustration that he and his wife experienced at a restaurant because of the slow service. He described how the idea just sprang into his mind as he sat at the restaurant table that evening.

Student #10 was described by the course instructor as having the ability to see into the future, and to innovate existing systems within China as appropriate to the context in which they function. This was in comparison to other international students, who the course instructor felt tended to innovate by transplanting ideas from elsewhere into their home countries. For Student #10, her creative idea came from noticing a gap in the customer experience, and then applying a course concept to reduce that gap. Her idea was to apply co-creation to Priceline, namely to have a customer ticket swap, where customers who had tickets that they could not use would be able to swap these tickets with each other. In her own life, she encountered the problem of having airline tickets that she could not use, and as she was considering what to do with these tickets, the idea for the customer ticket swap came into her mind.

When considering to what extent that diversity of the class influenced the generation of creative ideas, the results are inconclusive. Student #4 and Student #5 had ideas grounded in

the student-to-student dialogue, but their final papers generally copied these ideas into their home countries. Student #4's paper was considered to be a bit more creative as it changed the context of some of the ideas that she applied (for example, taking an idea from a restaurant and applying it to a medical clinic).

In describing how their ideas for the final papers were generated, some students, such as Student #2, struggled to find a topic for the paper. Some, such as Student #6, took an existing idea that they had identified previously, and polished it for this assignment. Others, such as Student #7 and Student #10 came up with their ideas for their final papers due to a need or gap they had identified in their own experiences as customers.

Similarly, when we analyse the amount of participation and the creativity level of the final paper, the results are inconclusive. Student #3 and Student #6 had high levels of participation, but had moderate and a moderate to high level of creativity for their final papers; Student #7, who was considered to have a low level of participation in the dialogue, had one of the more creative ideas; Student #4, who had a moderate to high level of participation in the dialogue had an idea that was moderate to low in creativity. Overall no pattern could be identified.

The one interesting thing from the analysis of the students' level of participation, the creativity of their final paper, and how they came up with the idea for that paper is that the three most creative ideas for final papers, namely those of Student #3, Student #7, and Student #10, resulted from a flash of insight. In a moment they had the idea for their final paper. They were also the only students whose creative ideas involved combining concepts; others looked at systems and how to improve the customer experience within those systems. However, no connection to their level of participation in the dialogue was detected; one has a high level of participation, one had a moderate level, and one had a low level of participation.

#### **4.7 Conclusion**

This chapter presented the results of the data analysis carried out in this study. Importantly, and in keeping with the course instructor's rationale in using student-to-student dialogue, the main benefit cited by students was that they felt that they had learned more from the dialogue than they would have in a more traditionally structured classroom. Many different specific benefits were cited, including that the concepts were engaged with more deeply, that the dialogue helped them apply the concepts to more diverse situations, and that they were able to verify their understanding through the dialogue. Importantly, the multicultural nature of the student-to-student dialogue was considered to be an advantage, as the students

felt that this exposed them to more examples and ideas than they would normally have been exposed to.

The main challenge to the practice of multicultural student-to-student dialogue identified by the study participants was a lack of participation by some students. Although several different reasons were cited as to why some students did not participate as much as others felt they should have, the overwhelming reason given was that a low level of English proficiency made it difficult for them to effectively participate. In keeping with this, the experience of the non-native speakers in the course was explored, and the challenges relative to language that they experienced were described.

Finally, Chapter 4 presented the results of an analysis of the creative ideas of the final papers of the Evolving Contexts of Service course, how the students generated these creative ideas, and their levels of participation in the student-to-student dialogue. The results of this analysis were inconclusive, warranting further study.

In Chapter 5, the results will be considered in the context of the research questions and as situated in the literature.

## Chapter 5: Conclusions

### 5.1 Introduction

This chapter draws together the research results and the literature review in order to address this study's research questions. What benefits did the students who participated in them multicultural student-to-student dialogue feel they had obtained from it? What challenges to the dialogue occurred? Given the multicultural nature of the class, how had the practice of student-to-student dialogue influenced the generation of creative ideas in the participants? The study's main conclusions will be identified and will be considered in light of the literature. Following this, the limitations of the study will be discussed and recommendations for further research will be indicated.

### 5.2 Research Question 1

As stated in Chapter 3, the first research question for this study was:

*RQ 1: What are the experiences of graduate students participating in multicultural student-to-student dialogue?*

- 1. What are the benefits of the dialogue for them?*
- 2. What challenges to the practice of student-to-student dialogue can arise?*

#### 5.2.1 Benefits of Student-to-Student Dialogue

The main benefit of the multicultural student-to-student dialogue cited by the students was that they felt that they had learned more through the student-to-student dialogue than they would have had in a traditionally formatted classroom. As described in Section 4.4.1, every student, with the exception of Student #8, mentioned this as the main benefit of the student-to-student dialogue. They felt that they understood the concepts more completely and made more connections within their own knowledge as a result of dialoguing with their classmates. The multicultural composition of the students was mentioned by every student except Student #2 as being of benefit, as students felt that they learned more not only from the dialogue, but because the people with whom they interacted exposed them to different perspectives and contexts. Student #4, Student #6, and Student #10 also spoke about the benefit of being active in the dialogue for their learning—that through actively engaging with the concepts they understood them more fully.

In this way this study's findings support the theoretical merits of dialogue. As described in Chapter 2, dialogue, or exploratory talk, is rooted in the idea of participants sharing

knowledge and engaging critically and constructively with each other's ideas (Barnes 2008). There are two main ways that dialogue is theorized to promote learning: the first is the social interaction inherent to dialogue, namely that in dialogue students interact with others and through this interaction build their own knowledge; the second is that students are active during dialogue, which is considered to benefit learning in that students learn best when they actively engage with the material. Thus there is a very close relationship between the benefits of student-to-student dialogue cited by the students in this study and those theorized in the literature.

While the dialogue overall was considered to have significantly benefited their learning, it did become clear through the student interviews that the course instructor and their fellow students contributed differently to this learning. The main content was provided by the course instructor, either directly or through the course materials that the students were required to review prior to class. New content did not seem to be introduced very often by the students; instead they seemed to focus on applying the concepts within one context or another, drawing upon their experiences in doing so. During the dialogue the students seemed to be engaged in the process of converting the course content into knowledge. As Mercer (1995) describes, information can be accumulated, but knowledge and understanding occur only when the information is worked with.

Vygotsky emphasizes the connection between external stimuli and the construction of knowledge within the individual. In effective dialogue, students are working collectively on a common knowledge, shared by the group; as the individual participates in the dialogue, he or she is also reflecting upon the information that he or she is being exposed to and is considering the questions that he or she is being asked, thus simultaneously developing his or her own knowledge. That this occurred within the Evolving Contexts of Service course can be seen from the comments of several students. Student #4 and Student #8 talked about the connections they made within their own knowledge during the dialogue, while Student #6 described realizing the cultural relativism of her own understanding. This demonstrates that during the dialogue students were not only interacting with others, but also engaged in the expansion and revision of their own knowledge.

Other benefits of the dialogue cited by students included that the dialogue allowed them to verify their understanding of the material earlier than in traditionally formatted classes, where often this would not occur until a test was taken; that critical thinking skills were developed, primarily because students were led to examine why they believed what they did; and that dialogue was more enjoyable, more "fun" than traditionally formatted classes, and that students became friends. Another important benefit identified by several students had to do with freedom—the freedom to question and the freedom to say what they thought

and for that to be accepted. As described in the results, it was as if a self-imposed censorship that students seemed often to experience in other classes, whether that be because of having more unusual thoughts, of being perceived of as negative, of being afraid of being wrong, or because of worries about making mistakes speaking in a foreign language, was lifted for many students; consequently they felt liberated.

### **5.2.2 Challenges to Student-To-Student Dialogue**

When considering the challenges which arose in the practice of student-to-student dialogue in the Evolving Contexts of Service course, the main challenge identified was a lack of participation by some students. According to the course instructor, this class was the second to last in terms of being able to effectively dialogue. A lack of participation by some students also emerged as a common theme during the student interviews. As a consequence of this lack of participation, at times the dialogue was negatively impacted. Student #6 and Student #8, as well as the course instructor, described how the dialogue would stop, and interventions from the course instructor would be needed for it to continue. This included asking additional questions or calling on students who were not participating. In keeping with the findings of Rocca (2010) and Sidelinger and Booth-Butterfield (2010), participation improved as the students became more comfortable in the class and with each other.

According to the literature described in Chapter 2 (for example Rocca 2010; Sidelinger and Booth-Butterfield 2010), one of the most important factors influencing the degree to which a student participates in class is the extent to which he or she feels comfortable doing so. How comfortable a student feels participating in class will be influenced by, amongst other things, that student's inherent level of confidence in classroom situations; the degree to which the learning environment is structured to encourage participation; and the degree to which the student feels comfortable and accepted by the course instructor and his or her peers.

With this in mind we can see that in the Evolving Contexts of Service course the course instructor used many techniques identified in the literature as promoting student participation in dialogue. These included using a U shaped seating pattern (Rocca 2010), grading participation and having this count heavily towards the final grade (Rocca 2010), establishing an relaxed atmosphere where all comments were considered (Sidelinger and Booth-Butterfield 2010) and also removing himself as much as possible from the dialogue (Reznitskaya *et al.* 2008).

Yet Student #8 and Student #9 mentioned that they believed that other students were uncomfortable during the student-to-student dialogue; Student #8 described them as being 'intimidated'. Thus it is important to note that while the majority of the students in the

course highly enjoyed the student-to-student dialogue and considered it to be beneficial for their learning, this was probably not the case for all of the students in the course.

Although a number of reasons for a lack of participation by some students were given in the interviews, ranging from individual differences such as being shy, to not being prepared on that day, a low level of English ability was the most commonly cited reason for a lack of participation (being cited by five students as well as the course instructor). This is in keeping with several studies (Kao and Gansneder 1995; Tatar 2005) which found that students who did not speak English as their first languages were less likely to participate in class. Taken within the context of the preceding discussion of what factors influence the degree to which a student participates in class, it would seem likely that a student who is unconfident in his or her language ability would feel less confident participating, which would tend to reduce the level of participation.

That non-native speakers encountered additional challenges because of this during the student-to-student dialogue seems likely, given that every non-native speaker in the class with the exception of Student #9 described challenges they experienced because they were not native speakers of English. The experiences they described mirror the literature. They described having difficulties in understanding native speakers, including the course instructor, who spoke quite quickly; not understanding all of the words used or jokes made; and especially not being able to follow jumps that were made in the logic of the dialogue (when the speakers would jump from one topic to another, some non-native speakers had difficulty following the thread of the conversation), challenges which were not mentioned by native speakers. They also described the challenge of having to listen and focus on what was being said, while at the same time trying to assemble the next comment that could be made; or taking time to think about the material but by the time they did so and had something to contribute, the conversation had moved on to something else.

As described in Chapter 2, Meyer (2000) identified four significant and highly-related barriers that non-native speakers face in English language classrooms: cognitive load, which refers to the number of new concepts the student encounters; culture load, which refers to the amount of cultural knowledge required to understand the meaning as communicated by others as well as the culturally-derived norms of the classroom; language load, which refers to difficulties with language, including the number of unfamiliar words, the rate at which people are speaking, difficult to understand pronunciations, and following the logic of a discussion that jumps from subject to subject or includes digressions or asides; and learning load, which refers to what the students are expected to do with English in the learning activities and tasks set out for them. When we consider the experiences of the non-native

speakers in the Evolving Contexts of Service course, the cognitive<sup>3</sup>, cultural, language, and learning load of many of them seems to have been heavy. Yet the course instructor, despite having utilized multiple techniques to promote dialogue in general, does not seem to have provided any special scaffolding designed to support non-native speakers.

Two students as well as the course instructor mentioned that the comments made by the students who were only participating because they had to (for the participation grade or because the course instructor had called on them), were generally of poor quality, contributing little to the dialogue. They were described as ‘not very relevant’ or as repeating what others had just said or repeating the same things over and over, with slight variations in the words.

When one considers this last point from the perspective of the literature, we see that repetition is a common coping mechanism used by non-native speakers. According to Wiberg (2003), repetition allows the speaker time to retrieve information; if they do not have to concentrate on what they are saying and instead repeat what someone else or they themselves have just said, either with or without minor variation, this gives them time to process the material under discussion. However, when Student #9 described doing this, the reason he gave for doing so was that it helped him to truly verify whether his understanding of the materials was correct. So we see three different perspectives (as perceived by other students, as found in the literature, and as explained by a student who did this) of the same phenomenon; to me this illustrates the multifaceted way in which such experiences should be considered. It is likely that non-native speakers do use this technique as a support mechanism when faced with the challenges of participating in classroom discussions in a foreign language; but this may not be all for which this technique is used. At the same time it is true, for some native speakers, that these comments contributed little to the dialogue.

Thus in a mixed class of native and non-native speakers, non-native speakers generally seemed to have found contributing to the dialogue to be more difficult. Despite the additional challenges that the non-native speakers faced to participating in the student-to-student dialogue, it is notable that two non-native speakers in the course, Student #3 and Student #4, described being initially intimidated by the classroom dialogue; but once they broke through ‘the barrier of shame’ (as described by Student #3) and decided to participate, regardless of any errors they might make in their English, they became active participants in the dialogue.

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<sup>3</sup> Most students, regardless of native language, indicated in the interviews that they had not been familiar with the course concepts prior to the Evolving Contexts of Service course.



According to Meyer (2000), the most effective way that non-native speakers can overcome a heavy load is through the *yearning goad*, meaning being so compelled by the material that the student is motivated to participate despite the heavy load. However, when considering the case of Student #3 and Student #4, their individual level of confidence also certainly played a role, arguably a more important one. While the material was interesting for them, what was different was that they consciously decided to participate, regardless of their level of English. In other words, the main barrier that they had to overcome was language-based; and they overcame it by having the confidence to decide to participate regardless of whether or not they made mistakes.

The results for the first part of Research Question 1 highlight the very real benefit of dialogue for learning, but also the importance of participation, of interacting with others and of actively engaging with the material for this benefit to occur. The results for the second part of Research Question 1 highlight, then, the very real challenges that those with lower levels of English ability face, and suggest, consequently, the limited benefits of dialogue for their learning. A lack of language ability is potentially a very real barrier which has the potential to keep students from participating in dialogue, being engaged, and increasing their understanding.

### **5.2.3 Engagement in Dialogue and Transformational Learning**

When one thinks of the students who were most engaged in the dialogue, as well as the three students whose experience in the course is the most compelling, it is interesting to note that these are the same three students: Student #3, Student #6, and Student #8. From the interviews with the students in the course as well as with the course instructor, these three students were consistently mentioned as being highly active and engaged in the dialogue; these three students could also be said to have had a transformational experience in the Evolving Contexts of Service class, though all for different reasons.

Student #3 was an international student; in her interview, she described how she normally does not participate in class very much, but how in this class it was different. When asked why this class was different, she described how at first she was hesitant, but the course instructor encouraged her to participate and finally she broke through ‘the barrier of shame’ as she called it, the fear of making mistakes in speaking English. From that point, her experience was remarkable. She shared her thoughts and asked questions in class; she described how this process helped her to make connections, literally how she would connect comments made by others in the class to her own thoughts, and how her thoughts would evolve as a result. Statements such as ‘it was very great, that class’ and ‘in that class, you could say anything’ pepper her interview responses, suggesting that for her, being able to

say anything and being able to fully participate are what made it a very great class, both experientially and for her own learning.

For Student #6 the freedom to question was transformational. In her interview, she communicated how at the beginning of class she was afraid to participate too much for fear that she would look like she was ‘showing off’; at various times during the interview she also described how at work at times she felt afraid to question, and also how in previous classes the course instructors would discourage her from asking questions or would indicate that her questions were ‘too crazy’. A key advantage of the dialogue, which threaded her interview, was that asking ‘crazy questions’ was not only accepted but also encouraged; in this way she felt liberated. At the same time, this freedom fed directly into the other main benefit of the dialogue for her—it helped her to assess the applicability of the course concepts to the real world, which was key to their value for her.

As described in Chapter 4, Student #8 was the only student interviewed who would have preferred if the course had been conducted in a normal classroom lecture format. His reasons for this were that he felt that in general he learned better in a lecture format, where he could process and reflect on the information; and that in this class in particular he felt that the dialogue did not go very smoothly and that the course instructor had to step in too often to keep the dialogue going because of a lack of participation by others. Yet for him the course was clearly transformational because of the constant connections and accompanying flashes of insight that he made between the course concepts and challenges that he had at work (he worked for the City of Rochester, often dealing with citizen complaints). The two key components that he identified for this were the course material and the ‘provoking’ style of the course instructor, who always asked him questions which pushed him to ‘take an idea further’, and which led to more profound and transformational connections.

Yet it should be noted that these provoking questions, although from the course instructor, took place during the student-to-student dialogue, a dialogue in which Student #8 participated heavily. I wondered at times if he was too dismissive of the student-to-student dialogue and the degree to which it may have contributed to his experience. In a normal classroom format would the course instructor have as frequently interacted directly with Student #8’s thoughts and ideas? And was the interaction with others, even if it was only the other highly active students in the class, of no benefit?

Transformative learning involved mental model revision, as described by Barnes (2008) ‘the reshaping of old knowledge in the light of new ways of seeing things’ (p. 3). Wood (2004) emphasizes the transformative power of dialogue, describing engaging in dialogue as an experience that allows ‘transformation in how one understands the self, others, and the

world they inhabit' (p. xvi). The experiences described in this section suggest that these three students experienced a transformational learning experience in the Evolving Contexts of Service course.

As these three students were also the students who participated most heavily in the dialogue, their experiences suggest that the outcomes of student-to-student dialogue may be proportional with the level of engagement in that dialogue, something supported by the notion that students learn best when they are active (and, it would seem, learn more when they are more active). At the same time, it could also be the other way around—that because the experience was so transformational for each of the three students, they participated more in the student-to-student dialogue.

The case of Student #8 also reminds us that in education dialogue is a means and not an end to learning. While it is possible that he downplayed the effect that the dialogue had on his learning, it is also possible that he did not. In the end Student #8 seems to have engaged with the course content in a transformational way; this does not have had to have occurred during the student-to-student dialogue. Dialogue can be an effective way to promote student engagement with the course content, but it is not the only way that engagement can occur. One point illustrated by the findings is that the experiences of the students in the course were diverse; the singular phenomenon of the student-to-student dialogue which took place in the Evolving Contexts of Service course during the fall of 2013 was perceived differently and had different benefits for different people. This suggests that there is much more to understand about the use of student-to-student dialogue and how it can affect the students who participate in it.

#### **5.2.4 Participation Does Seem to Matter**

As emphasized by Barnes (2008), one of the advantages of student-to-student dialogue is that during dialogue students actively work with the material, which promotes learning. One point that I wondered about whilst analysing the results was how important participation<sup>4</sup>, as a specific activity, was to this process. This question was sparked by the realization that while the course instructor and some students (most notably Student #8) emphasized the problem that low participation by some students had been for the dialogue, every student with the exception of Student #8 was an enthusiastic champion of student-to-student dialogue and its benefit to their learning. Thus, despite low levels of participation by some students, the objective of the course instructor in utilizing student-to-student dialogue seemed to have been realized.

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<sup>4</sup> As described in Chapter 2, for the purposes of this study participation is defined as 'the number of unsolicited responses volunteered' (Burchfield and Sappington 1999, p. 290).

As described in Chapter 4 it seems that there were some students in the Evolving Contexts of Service course who rarely spoke and were not engaged in the dialogue, and, on the opposite end of the spectrum, some students who frequently participated and were highly engaged in the dialogue. Those students who fell in between these two polarities, from the descriptions of the course instructor, other students, and from their own descriptions of their own behaviour, seem to have been engaged in the dialogue (meaning they were interested in, actively following and considering the topics being discussed). Their verbal contributions were not very frequent; however, it should be noted that the course instructor characterized the contributions these students did make as very insightful and profound. As described in Chapter 2, Laurillard (2012) emphasises that participating in discussion does not lead to learning. Instead, the benefit of the dialogue for a student's learning will be in proportion to the extent to which that student takes a particular position; backs up his or her position with evidence and explanations; considers and responds to the arguments of others; reflects on his or her own perspective in light of those of others; works collectively with others towards an agreed output such as greater understanding; and applies what he or she has learned. Some of these behaviours refer to interacting with others during the dialogue; but others are internal and may occur without participation. Thus it seems that although the course instructor valued the participation of the students (and to be fair, the quality of that participation), participation did not have to occur for the student's learning to be benefited; if he or she was engaged in the dialogue the student would still be likely to obtain many of the benefits of dialogue, even if he or she was not participating frequently. The experience of Student #8, described in the previous section, may be a possible example of this.

So, then, how important is actively participating (speaking) in dialogue for the student's learning? In other words, can it be said that a student who is engaged in the dialogue but does not speak very often gains less than a student who is also engaged in the dialogue but speaks more often? And how does the level of contribution compare between a student who makes less frequent but profound and insightful comments as compared to a student who makes frequent but less high-quality comments?

Perhaps insight can be gained from once again considering the merits of actively engaging with the material. Although students who were engaged in the dialogue but did not speak very often were still actively engaging with the material, it could be argued that a student who is both engaged with and actively participating in the dialogue may obtain greater benefit.

The results of this study provide some support for this idea, in that those students who seemed to have obtained the greatest benefit from the dialogue were also those who participated the most in it. The literature also lends support to the importance of

participation. If we consider the dynamic of dialogue, particularly the relationship between intramental and intermental thinking described in Chapter 2, it would seem that those who participate less are in a way only participating in half of the process of dialogue. In the verbiage of Mercer (1995), these students are “working with” others’ knowledge and their own internal knowledge, but are not subjecting their own knowledge to be “worked on” by others in the group. They are not subjecting these thoughts to the constructive critique and confirmation of others, a critique and confirmation which is beneficial for assessing one’s own knowledge. They are also potentially missing out on the phenomenon reported by others, particularly Student #4 and Student #6, in which once they voice something, connections are made within their minds. Perhaps there is something about organizing a thought and communicating it which enhances our understanding of it.

In this way students who participate less, while still reaping the benefits of being engaged in dialogue, are potentially reaping fewer benefits than those who communicate their internal thoughts to others more frequently. While less frequent participation can thus potentially limit a student’s learning, it also has the potential to limit others’ learning as well. As described by Mercer (1995), the dynamic of dialogue is based on the interrelationship between theory of mind (assessing the knowledge of others) and metacognition (assessing our own knowledge); if others are not frequently sharing their own ideas and knowledge this provides less material for the class as a whole to work with. Because there is less material for theory of mind, metacognition could be reduced.

Thus it seems that while it is important to remember that actively working with the material can occur even without frequent participation, when the results of this study are considered in conjunction with the literature, it seems that participation may still matter; namely that more frequent participation in student-to-student dialogue may be associated with enhanced learning both for the individual and the group.

### **5.3 Research Question 2**

Research Question 2 asked:

*RQ2: How does participation in multicultural student-to-student dialogue influence the generation of creative ideas in graduate students?*

- 1. How does the diversity of the class affect the generation of creative ideas?*
- 2. How does the level of participation in multicultural student-to-student dialogue affect the generation of creative ideas?*

### 5.3.1 Class Diversity and the Generation of Creative Ideas

As described by Sawyer (2012) and Weisberg (1999), the generation of a creative idea can be considered to be the product of interaction between two main components: knowledge and the cognitive processes which act upon that knowledge, actually generating the creative idea. The ideal knowledge for creativity is t-shaped, meaning that it is broad (diverse) as well as deep (in-depth). Being exposed to new information has been shown to promote the development of t-shaped knowledge, in that it both “fills in” our deep knowledge and makes our knowledge more diverse (Chi 1997; Sawyer 2012). Thus student-to-student dialogue, in which students are sharing their ideas and perspectives with each other, is considered to be of benefit to creativity; this benefit is further enriched in keeping with the diversity of the students in the group (Leung *et al.* 2008).

Regarding the first part of Research Question 2, the results are inconclusive regarding how the diversity of the class may have affected the generation of the creative idea for the final course paper. As described in Section 4.4.1.4, students in the course felt that they had benefited from the diversity of the class because it exposed them to different ideas and experiences during the dialogue. However, when the ideas for the final papers were examined, only two of them, namely those of Student #4 and Student #5, were grounded in the student-to-student dialogue. Moreover, the final papers of these two students demonstrated minimal creativity, and primarily consisted of copying ideas discussed in class into their own home countries.

In contrast, the most creative ideas for the final papers (namely those of Student #3, Student #7, and Student #10) did not seem to draw directly upon ideas mentioned in class. They do, however, demonstrate creative thinking. Student #3 and Student #7 used association (Sawyer 2012) (also called combinatorial thinking by Boden (2001)), meaning that they generated a new idea by combining concepts, while Student #10 used exploratory thinking (Boden 2001), meaning that she used existing styles and rules to generate a new idea within a specific conceptual space. However, it is unclear to what extent this process was influenced by the diversity of the information to which they were exposed during the student-to-student dialogue.

In considering the benefit of exposure to diversity to the creative process, theorists tend to focus on its contribution to the raw material of creativity, knowledge. However, there is evidence that exposure to diverse information benefits the cognitive processes used in creativity as well. The body of literature regarding a hypothesized connection between exposure to diversity and creativity is limited, but the main theory espoused by those investigating this connection is the theory of creative cognition. As described in Chapter 2, the theory of creative cognition holds that the cognitive processes which are used in

creativity are normative in nature, meaning that they are used by all people in everyday life; those who are creative either use these cognitive processes in different ways, with different intensity, or have richer knowledge as raw material for the creative process. From looking at the results of this study, could the cognitive processes of these three students have been influenced by the diversity of the student-to-student dialogue? Did the cognitive processes they used to process the diverse information they encountered during the dialogue make it easier for them to use these same cognitive processes (association, exploratory thinking) for their final papers? It seems plausible that this may have been the case, but it is far from certain whether these students, or indeed the students in the Evolving Contexts of Service course in general, were more creative because of the diversity of information they were exposed to during the student-to-student dialogue.

### **5.3.2 Participation in Dialogue and the Generation of Creative Ideas**

Regarding the second part of Research Question #2, no connection was identified between levels of participation and the generation of creative ideas for the final paper. Possible reasons for this include that there may be no connection, that no connection was identified because the sample examined was too small, and/or because the level of student participation was not accurately assessed.

The point discussed in Section 5.2.4, namely that a lack of participation does not necessarily equate with a lack of engagement, may be relevant here. For the purposes of this study, the level of participation was assessed, but not the level of engagement. It may be that students who were not highly active during the dialogue nevertheless were highly engaged. Perhaps instead of trying to establish a connection between participation levels and the generation of the creative idea, it might have been more appropriate to examine the level of engagement instead.

## **5.4 Recommendations for Further Research**

Although this study contributed meaningful findings which add to our understanding of the practice of student-to-student dialogue in the real world, a number of questions remain unanswered and a number of new questions were raised. Some areas which warrant further research include:

- Why do some non-native speakers overcome language barriers more easily than others? What role does confidence level, either considered in isolation or in combination with level of language facility, play? What role does learning goal play in helping non-native speakers overcome language barriers in student-to-student dialogue?

- How can non-native speakers be supported during student-to-student classroom dialogue? Would stimulation of the students' interest in the course material support non-native speakers?
- Do students who engage with the concepts through verbal participation in dialogue have better learning outcomes than those who only mentally engage with them?
- This study identified no connection between amount of participation in class dialogue and the generation of creative ideas; is this because there is no connection or because a distinction needs to be made between engagement and participation?

### **5.5 Recommendations for Practice**

- The results of this study regarding the benefits and challenges of the use of dialogue as a pedagogy should be shared with those teaching within higher education. Through learning more about the benefits suggested by the literature as well as the results of this study, it is hoped that more instructors will be encouraged to move towards dialogic education. Similarly, through understanding the challenges that can arise during student-to-student dialogue, instructors can improve its practice.
- The results of this study suggest the greater benefit of participation (as compared to passive engagement) in dialogue for student learning. In keeping with this, instructors should do what they can to stimulate students' natural interest in the topic being discussed; they should also recognize the barriers to participation which may exist, and remove or minimize them in order to encourage student participation.
- The results of this study regarding the challenges faced by non-native speakers during student-to-student talk should be shared with higher education educators, particularly those who teach in multicultural classrooms. The hope is that they will become more aware of the challenges faced by non-native speakers and because of this will be able to do more to support these students in the classroom.
- Regarding all of these points I would recommend practitioner research in which educators work together to identify methods which can be used to improve the practice of dialogue as well as support the participation of native and especially non-native speakers in that dialogue.

### **5.6 Limitations of the Study**

There were a number of limitations to this study. These include:

- The researcher was a faculty member at the university in question; additionally she knew several of the students from previous classes. This may have influenced the



degree to which student participants felt comfortable with her and may have limited the information that they shared with her.

- The study was retrospective in nature, with the primary data collection occurring several months after the course had ended. One consequence of this was that no actual student-to-student dialogue was observed for this study; additionally the quality of the information communicated during interviews may have been affected by the time that had passed since the actual dialogues took place. Inaccuracies in the information gathered may have occurred due to poor recall.
- Not all of the students in the Evolving Contexts of Service course agreed to participate in the study, which means that not all perspectives on the student-to-student dialogue were obtained.
- Not all students completed the innovation option for their final papers; this reduced the pool of papers for analysis to a number which made it difficult to draw any meaningful conclusions.

## **5.6 Conclusion**

This study provided important findings about the practice of multicultural student-to-student dialogue in higher education. Its findings add to what is known about the practice of student-to-student dialogue and the benefits that it may provide to the students who participate in it.

Higher education is becoming more and more internationalized, and from this study we can see that the opportunity to interact with others with different experiences and ideas can be advantageous to student learning. Yet internationalization also means that more and more students are studying in languages other than their native language; this can present real challenges to them during student-to-student dialogue. Not only might this make it difficult for them to effectively participate in the dialogue, but it also suggests that the benefits to their learning may consequently be minimized. Thus more should be learned about how to ensure the full participation of all students.

Another advantage of being exposed to diverse ideas and perspectives is that it has the potential to increase our creative capability. Yet the findings of this study were generally inconclusive regarding whether this occurred in the Evolving Contexts of Service course. Some students did utilize creative thinking in generating the idea for their final papers, but it is unclear to what extent this was influenced by participating in the student-to-student dialogue. Thus the theorized connection between participating in multicultural student-to-student dialogue and creativity warrants further research.



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## **Appendix A: Contact E-Mail Sent to Evolving Contexts of Service Students Asking for Their Participation in This Study**

Hello [the student's name],

I hope that you are well.

I don't believe that we have had a class together yet, but I am a colleague of [the course instructor] who teaches in the Service Leadership and Innovation program.

At the moment I am involved in a research study, the focus of which is classroom dialogue. The specific dialogue "case" that I am studying is the dialogue which took place in the Evolving Contexts in Service course that [the course instructor] taught last semester.

With this in mind, I was wondering if you would be willing to speak with me regarding your experiences with the classroom dialogue in that class? I am primarily interested in your perspective on what it was like to participate in the dialogue and which ways, if any, participating in the dialogue might have contributed to your learning.

Of course, if for any reason you do not feel comfortable participating in this study, that is OK. At the same time, your input would be highly valuable to me. If you are available, I would estimate that I would need about 30 minutes of your time. I would be more than happy to buy you a coffee and then we could just sit and talk.

Please give it some thought and then let me know.

With best wishes,

Jennifer Matić

## **Appendix B: Informed Consent Form**

### **Consent to Participate in a Research Study**

#### **“Exploring the Relationship between Classroom Dialogue and Individual Generative Creativity”**

*You are being invited to take part in a research study about the effects of classroom dialogue on student creativity. Before you decide to participate in this study, it is important that you understand why the research is being conducted and what it will involve. Please take the time to read the following information carefully. Please ask me if there is anything that is not clear or if you need more information.*

#### **Description of subject involvement**

The focus of the study is the relationship between creativity and the classroom dialogue which took place in the Evolving Contexts in Service course during the fall semester of the 2013-2014 academic year.

If you agree to be part of the research study, you will be asked to participate in a one-to-one interview which discusses your experiences in the dialogue sessions of the Evolving Contexts in Service course. It is estimated that your involvement would require about 30 minutes of your time.

#### **Benefits of the study**

Although you may not directly benefit from being in this study, others may benefit as the findings of this study can be used to help develop the creativity of students in the future.

#### **Risks and discomforts**

There are no known risks associated with this study because the data collection is confidential and the topic is not sensitive.

#### **Confidentiality**

I plan to publish the results of this study, but will not include any information that would identify you. Every effort will be made by the researcher to preserve your confidentiality including assigning a code number to each participant that will be used on all researcher notes and documents. Additionally, any information gathered will be properly secured on a password protected computer and destroyed after the conclusion of the study.

**Contact information**

If you have questions about this research please contact the researcher, Jennifer Matic, at [jxmistr@rit.edu](mailto:jxmistr@rit.edu) or 585-475-7257.

**Institutional Review Board:**

If you have questions regarding your rights as a research subject, or if problems arise which you do not feel you can discuss with the researcher, please contact RIT's Institutional Review Board Office at 585-475-2167 or [dmspop@rit.edu](mailto:dmspop@rit.edu).

**Voluntary Participation:**

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you do decide to take part in this study, you will be asked to sign a consent form. If you decide to take part in this study, you are still free to withdraw at any time and without giving a reason and without detriment to your educational attainment or entitlement to services at RIT. If you decide to withdraw from the study, any previously gathered data will be destroyed. You are free to not answer any question or questions if you choose. This will not affect any relationship you have with the researcher.

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**Consent:**

By signing this document, you are agreeing to be in the study. You will be given a copy of this document for your records and one copy will be kept with the study records. Be sure that questions you have about the study have been answered and that you understand what you are being asked to do. You may contact the researcher if you think of a question later.

*I agree to participate in the study.*

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Printed Name

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Signature

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Date

## **Appendix C: Initial Instructor Interview Questions**

The primary questions asked in the interview were:

- 1) Would you tell me a little about the course and what it is designed to accomplish?
- 2) By your estimation, what percentage of the class time consists of student-student dialogue?
- 3) From your own description, the course is heavily dialogue based. Why is that? In other words, why have you designed the course to contain a lot of student-to-student dialogue? What do you believe to be the advantage(s) of dialogue as a pedagogy?
- 4) Would you describe how you organize the class and in-class activities to facilitate student-to-student dialogue?
- 5) Overall, how satisfied were you with the classroom dialogue during the course? Could you please explain?
- 6) Is there a session / activity where you felt the dialogue worked particularly well? Could you please describe it for me?
- 7) Can you describe a session / activity where you felt it was less successful?
- 8) You are an expert on the use of dialogue in the classroom. For you, what defines good student participation?
- 9) If you were to compare effective dialogue and ineffective dialogue, what would the main differences be? In other words, what characterizes effective dialogue? Can you give an example from your own experience to illustrate?
- 10) How do you prepare the students for participating in dialogue? How do you help them perfect their practice of dialogue?
- 11) Could you describe the class composition to me? (looking for how diverse was the class)
- 12) In your opinion, did the diversity of the class affect to the effectiveness of the student dialogue? If so, how?
- 13) In your opinion, why were some final papers more creative than others? What are the factors which influence the creativity of the final papers?
- 14) Do you believe that the creativity of the students' final papers was affected by participating in classroom dialogue? If so, how? Could you provide some examples to demonstrate this?

## Appendix D: Student Interview Questions

1. Please tell me, overall, what was your experience with the Evolving Contexts of Service course. Did you enjoy the class? Did you feel that you learned a lot?
2. On a scale of 1-10, how interested would you say you were in the concepts discussed in this course?
3. Please tell me a little about the process of learning to dialogue.
  - Had you dialogued before?
  - At the beginning of the course, did you understand what dialogue was? If not, how did you learn how to dialogue?
  - Did [the course instructor] help you improve your dialoguing skills? If so, how?
4. If we compare a student who is very good at dialogue and one who is not very good at dialogue, what is the difference?
5. A lot of class time was devoted to dialogue. Do you believe that dialogue helped you learn, or was a barrier to your learning (or had no effect)? Why?
6. Were there any other benefits of the classroom dialogue? If so, which?
7. Do you think that you would have learned more if [the course instructor] had spent more time lecturing and there had been less dialogue? Why or why not?
8. If I am correct, your class was very diverse in terms of including students from different cultures and programs. Did you find this to be a negative, positive, or to make no difference on the quality of the dialogue sessions?
9. Think of one example when you took part in classroom dialogue that really helped you understand an idea in the course. Now, tell me about what happened.
10. Are there any other specific moments of the classroom dialogue that you particularly remember/ stick in your mind? If so, could you please describe them for me?
11. If we think about the class as a whole, did you feel that most of the people in the class were engaged in the dialogue? If some were not engaged, why do you think that was?
12. Let's talk now about your final paper. Where did the idea for your final paper come from? (was it a flash of insight or did it evolve over time)
13. Do you feel that you learned more on the Evolving Context of Service course from [the course instructor] or from your fellow classmates?

## **Appendix E: Second Interview with the Course Instructor Questions**

1. Could you please describe for me your observation of (the student)'s participation in the course's classroom dialogue? How did he/she first react to dialogue (for example was he/she eager to participate, hesitant...?) How did he/she react when exposed to ideas that were different from his/her own?
2. Was there anything notable about how (the student) participated in the dialogue sessions? Were there any instances that stand out to you? If so, could you please describe them to me?
3. What was your impression of the learning that (the student) underwent during the dialogue sessions? Do you feel that he/she learned a lot from the dialogue sessions? Why or why not? What was your assessment of (the student's) knowledge before the dialogue sessions? After? What are your conclusions based upon?